

# ORDER

8240.36F

## INSTRUCTIONS FOR FLIGHT INSPECTION REPORTING



**September 3, 1997**

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

**9/3/97**

## RECORD OF CHANGES

DIRECTIVE NO.

**8240.36F**

[illegible]

## FOREWORD

This order provides policy, guidance, and distribution requirements for flight inspection reports and records.

The report shall accurately reflect the operating parameters of the air navigation facility. It will be the means to certify the operational status of the facility, the quality of signal-in-space, and the instrument flight procedures it supports.

Flight inspection files (e.g., flight inspection reports, data sheets, oscillographic recordings, photographs, correspondence, et al) are federal records. Unless classified by specific authority, they are available, on request, to the public by the authority of the Freedom of Information Act, Title, 5, United States Code, section 552. The policy and legal requirements for records management are contained in other Federal Aviation Administration (FAA) orders.

Guidelines for record disposition are contained in FAA Order 1350.15, Records Organization, Transfer, and Destruction Standards.

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## **CHAPTER 1. INTRODUCTION**

**I. PURPOSE.** This order provides policy, guidance, and distribution requirements for flight inspection reports and records.

**2. DISTRIBUTION.** This order is distributed to branch level in the Flight Inspection Operations Division in Aviation Systems Standards, Washington headquarters; FAA Academy, Mike Monroney Aeronautical Center; the branch level in the regional Airway Facilities Divisions; the International Flight Inspection Office, all Flight Inspection Offices; and special military addressees.

### **3. CANCELLATIONS.**

**a. FAA Order 8240.36E,** Instructions for Flight Inspection Reporting, dated June 10, 1996, is canceled.

**b. Genot N 8240.30,** dated May 28, 1997, and **Genot N 8240.31,** dated June 24, 1997, are canceled.

**4. EFFECTIVE DATE.** This order is effective October 15, 1997.

### **5. EXPLANATION OF CHANGES.**

**a. Basic Order:** Paragraph numbers added to footers.

**(1) Page 8, paragraph 12b.** Location field requirement clarified.

**(2) Page 8, paragraph 12c.** Clarifies Identifier Field entry requirements on the AMIS facility data sheet when the facility is installed in support of a specific temporary requirement.

**(3) Page 10, Paragraph 12i.** Clarifies Facility Status Field entry requirements.

**(4) Page 10, Paragraph 12k.** Requirements added for reporting when a flight inspection is accomplished over multiple dates, etc.

**(5) Page 11, Paragraph 12m.** Requirements for entering aircraft number changed to aircraft registration number.

**(6) Page 14.** Paragraph titled, "Special Checks Which Meet Periodic Requirements," Paragraph 21e in Order 8240.36E, deleted and all succeeding paragraph numbers changed.

**(7) Page 14, Paragraph 21f.** Paragraph reference number changed when Paragraph 21e was deleted.

**(8) Page 14, Paragraph 21h.** Added requirements for recording when a SIAP is found unsatisfactory during a scheduled SIAP evaluation.

**(9) Page 14, Paragraph 12j.** Requirement added to enter date ESV is checked.

**(10) Page 15, Paragraph 12m.** Four letter ID added for Anchorage.



**b. Appendix 1, Pages 1 and 2.** FAA Form 8240-4 modified, FAA Form 8240-5-1 modified, FAA Form 8240-5-2 added, FAA Form 8240-6-2 added, FAA Form 8240-17 modified, FAA Form 8240-18-1 added, FAA Form 8240-21 modified, FAA Form 8240-21-1 added.

**c. Appendix 2**

**(1) Page 1, Paragraph c(2).** Abbreviations “FEDR” and “INTX” added.

**(2) Page 2.** Reporting requirements for Radial Data (Field 8 of FAA Form 8240-2) clarified.

**(3) Page 2, Field 9.** General. Deleted requirement to enter type of voice when voice is inspected.

**(4) Page 2, Field 10.** Deleted, “or as indicated” at end of sentence.

**(5) Page 4, Paragraph f.** Deleted requirement to annotate the average alignment of each orbit on this form.

**d. Appendix 4**

**(1) Page 1, Introduction paragraph.** Added requirement to complete separate form for standby equipment.

**(2) Page 1, Paragraph 1d, Field 4.** Azimuth Error reporting clarified.

**(3) Page 1, Paragraphs 1f and g, Fields 6 and 7.** Changed DME distance lock-on and TACAN azimuth lock-on to DME distance unlock and TACAN azimuth unlock.

**(4) Page 2, Field 10.** Recording of signal strength changed to dbm instead of  $\mu V$ .

**(5) Page 2, Field 11.** Requirement added to include mean alignment on report, when accomplished.

**(6) Page 2, Field 12.** Requirement deleted for plotting VORTAC’s with standby equipment on one report.

**(7) Page 2, Field 13.** Example added for reporting orbit radius.

**(8) Page 3, FAA Form 8240-4.** “N/A” added to “Flight Inspector’s Signature” block. VOR coverage recorded in dbm vs.  $\mu V$ .

**e. Appendix 5**

**(1) Page 1, Paragraph h(4).** Nondirectional Beacon reporting requirements clarified. Deleted requirement to enter voice type when voice is inspected.

**(2) Page 3, Paragraph m(2).** Direction Finding requirements for Remarks section of FAA Form 8240-19 deleted.

(3) **Page 4.** Corrected FAA Form 8240-19 in Order 8240.36E, which had a formatting error in Field 9.

**f. Appendix 6**

(1) **Page 1.** FAA Form 8240-6-2, Flight Inspection Report--Precision Approach Radar TPN-22 Continuation Sheet, added.

(2) **Pages 2 and 3.** Abbreviations "CK'S", "CFAR", and "ALS" added.

(3) **Page 3. Paragraph 3,** Instructions for completing FAA Form 8240-6-2, added.

(4) **Page 4.** Second line of title ("AND CONTINUATION SHEET") deleted.

(5) **Page 5.** The word "AND" deleted from second line of title for form.

(6) **Page 6.** FAA Form 8240-6-2 added.

**g. Appendix 7**

(1) **Page 1, Paragraph 1.** Instructions for completing FAA Form 8240-21 rewritten. ILS Continuation Worksheet completion instructions added.

(2) **Page 2, Paragraph 1l(2).** Facility Configuration reporting codes added.

(3) **Page 3, Paragraph 1l(4).** Abbreviations to be used in completing FAA Form 8240-21 added.

(4) **Page 4, Paragraph 2.** Instructions for completing FAA Form 8240-21-1 added.

(5) **Page 5.** The revised FAA Form 8240-21, dated 11/96.

(6) **Page 6.** FAA Form 8240-21-1 added.

**h. Appendix 8**

(1) **Pages 3 and 4, Paragraph 6r and 7m.** Guidance added to Paragraphs 6r and 7m to show that "Monitor" in Fields 9 and 10 of FAA Form 8240-8 is a heading and should be left blank.

(2) **Page 3, Paragraph 7g.** Requirement deleted for entering clearance below path values made while facility is in a monitor limit setting.

(3) **Page 5, Paragraphs 10d and e.** Requirement added to include the 8240.47 information in the Remarks field of the Aircraft Management Information System (AMIS).

(4) **Page 6.** The revised FAA Form 8240-7, dated 5/96.

**i. Appendix 9, Page 3.** Corrects typo in third line of the title which appeared in Order 8240.36E. Deleted requirement to analyze transverse structure at 0.7<sup>0</sup> below path.

**Appendix 10**

**(1) Page 3.** “Page of \_\_\_ Pages” added to top of FAA Form 8240-18.

**(2) Page 4.** “N/A” added to Flight Inspector’s Signature block of FAA Form 8240-18-1.

**n. Appendix 12, Paragraph 1d(2).** Acronym “IBI” spelled out.

**o. Appendix 14**

**(1) Page 1.** Paragraph 2c, Periodic Update, which appeared in Order 8240.36E has been deleted.

**(2) Page 2, Paragraph 5c.** Date and time of accident reporting clarified.

**(3) Page 2.** Field 7, Weather Conditions at Time of Accident, and Field 9, Accident Involved Contact with Terrain or Ground Obstruction, reporting requirements deleted.

**(4) Page 4.** The revised FAA Form 8240-17, dated 9/96.

**p. Appendix 16.**

**(1) Page 1.** Requirement added to enter the alignment error of the approach course azimuth in Field 9 as presented by the AFIS when using automated methods.

**(2) Page 2, Paragraph 7b.** Sample reporting requirements for Field 10 clarified for PFE, PFN, CMN.

**p. Appendix 17**

**(1) Page 1, Paragraph c.** Requirement added to enter the GPS control number listed on the PC form of the procedure package in Field 3 of FAA Form 8240-5-1.

**(2) Page 1, Paragraph e.** Clarifies reporting requirements for Field 5 if approach is not to a specific runway.

**(3) Page 1, Paragraphs g(3) and (4).** Clarifies reporting requirements for Final Approach Waypoint and Missed Approach Waypoint.

**(4) Page 2, Paragraph i.** Instructions added for reporting when conducting GPS Flight Inspection System (GFIS) flight inspections.

**(5) Page 3 (and 4).** The revised FAA Form 8240-5-1, dated 12/96.

**q. Appendix 18.** GFIS Worksheet (FAA Form 8240-5-2) and instructions added.

**r. Appendix 19.** Formerly Appendix 18 in basic order.

**s. Appendix 20.** Formerly Appendix 19 in basic order.

**6. COMPUTER GENERATED FORMS.** This paragraph provides information on the automation of the flight inspection forms.

**a. Implementation.** The implementation of this system will reduce the errors and tedium of filling in flight inspection forms either by hand or the typewriter. This system also allows information to be extracted from sources such as text files and other databases.

**b. Use of Automated Forms.** The software package will provide an automated method for completing flight inspection forms. This automated process allows each user to fill in forms completely, accurately, and to print the forms.

**c. Equipment Requirements.** Each user office must have access to the appropriate hardware/software package. The required software, as well as a user's guide for the current form software package, may be obtained from the Flight Inspection Operations Automation Technology Branch.

**d. System Description.** This electronic form processor has a visual interface and allows each user to work with forms using windows, pictures, and menus on a screen. The completed screen data and form may be printed on bond paper.

**e. Some Features of the System.** This program allows the user to:

- (1) Bring a copy of the form into the work area on a screen.
- (2) Tab or select particular fields on the forms with a mouse and type in required data.
- (3) Automatically fill in areas on the form by the computer using many designated fields which contain relatively constant facility data.
- (4) Fill in forms completely and accurately with many automatic checks and entries.
- (5) Fill forms with information from central data-bases.
- (6) Print forms efficiently.

**f. Appendix 1, Flight Inspection Forms,** contains a listing of forms used in reporting various facilities and types of inspections.

**7. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS.** (Refer to Order 8200.1, United States Standard Flight Inspection Manual, for definitions, acronyms, and abbreviations.) This order contains instructions and guidance material. Directive verbs are used. In this order, the words:

**a. Shall** in the second or third person means that an action is mandatory - a "must." "Shall not" means that an action is prohibited.

**b. Will** indicates it is understood that an action is to be taken. Do not use "will" when you mean "must."

c. **Should** means that an action is desirable but not mandatory or, "We would like you to do it, but you don't have to."

d. **May** means an action is permissive - or "If you want to, go ahead."

**8. INFORMATION CURRENCY.** Any deficiencies found, clarifications needed, or suggested improvements regarding the content of this order should be forwarded to the Flight Inspection Policy and Standards Branch, AVN-230, for consideration. Your assistance is welcome. If an interpretation is urgently needed, you may call AVN-230, FTS 405 954-4526, for guidance, but you should also use FAA Form 1320-19 as a follow-up to verbal conversation.

**9. - 10. RESERVED.**

## **CHAPTER 2 - GENERAL INFORMATION**

### **11. GENERAL FORMS COMPLETION.**

**a. Reports.** The flight inspector is responsible for initiating reports for all flight inspections.

**b. Reporting Numeric Data.** Unless otherwise stated, report numerical data to the following accuracy:

(1) **Microamperes** - To the nearest whole microampere.

(2) **Altitude** - To the nearest foot, mean sea level (MSL).

(3) **Azimuth** - To the nearest tenth of a degree.

(4) **Percent** - To the nearest tenth of a percent.

(5) **Mileage** - To the nearest tenth of a nautical mile.

(6) **Angles** - To the nearest hundredth of a degree.

(7) **Widths** - To the nearest hundredth of a degree.

**NOTE:** In accordance with FAA Order 8200.1A, paragraph 302.2j, the following guidelines shall be used in rounding off computations. Measurements and calculations should be carried to one decimal place more than that required for tolerance application. Then apply the following criteria to round off a measurement.

Numerals 1 to 5, round off to zero.

Numerals 6 to 9, round off to the next higher value.

Example: Glidepath Course Width:  $0.755^{\circ} = 0.75^{\circ}$   
 $0.756^{\circ} = 0.76^{\circ}$

Exception: If a measurement exceeds a tolerance, it shall not be rounded off to an intolerance condition.

Example: Glidepath Course Width -  $0.903^{\circ}$  is out of tolerance.

**c. Primary and Supplementary Report Forms.** The current software for automated form completion shall be used when available. The forms may be filled out by hand. Use a medium point pen with black ink or a typewriter for data entry.

**d. Non applicable Portions of Report Forms.** If any part of a report form does not apply to the facility inspected or the type inspection conducted, leave it blank.

**e. Page Numbering.** When a report consists of more than one page, number the first page of the report "Page 1 of \_\_ Pages" in the upper right hand margin of the report. Number succeeding pages consecutively. If not preprinted on the report form, write or type page number information in the upper right hand margin of the form e.g., Page \_\_\_\_ of \_\_\_\_.

**f. Type Inspection.** Report only one type of inspection per report form (i.e., if a periodic inspection is conducted on one component of a facility concurrently with a commissioning check of another component of the same facility, submit a separate report on each).

**g. Facilities Supporting Other NAVAID's.** When a facility's primary purpose is to support a procedure on another NAVAID (e.g., 75 MHz marker beacon, DME, etc.), the supporting facility shall be reported on the "NAVAID's" report form, unless otherwise directed in the appropriate appendix. If the facility component is an LOM and supports a separate NDB approach procedure, refer to appendix 5.

**h. Surveillance Inspection Discrepancies.** Report discrepancies of services and airport conditions on FAA Form 8240-14, Flight Inspection Report--General Characteristics. Identify the type inspection as a "Special" (code DF). Report facility discrepancies found during a surveillance inspection on the appropriate facility report form (e.g., ILS, VOR, etc.).

**i. Facility Performance.** The report shall reflect the facility "as left," unless specified otherwise by reporting instructions for a given facility type.

**j. Satisfactory/Unsatisfactory Report Entries.** Unless otherwise stated in this order, enter an "S" if satisfactory; enter a "U" if unsatisfactory and refer to chapter 3, paragraph 21a.

**12. COMMON REPORT DATA.** Any additional information or exceptions to the following instructions are specified in the reporting instructions for each type facility. Instructions for reporting common information are as follows:

**a. Common Data on Each Report Page.** Page Number, Location, Ident, and Date shall be included on all pages of a flight inspection report.

**b. Location Field.** Facility location information will be consistent with the information listed on the AMIS facility data sheet. Enter the location and state listed on the data sheet in field one (airport name not required). For shipboard tactical air navigation (TACAN), enter the name of the ship and the hull number (e.g., USS Nimitz - CVN68).

**c. Identifier (Ident) Field.** The facility IDENT listed on the AMIS facility data sheet will be entered in field 2 of the first page of the report (IDENT block). If the facility identifier is changed, refer to chapter 3, paragraph 21. When mobile/tactical facilities are installed for extended periods of time and utilized for instrument flight rules (IFR), the identification (ID) will be assigned the same as a permanent facility. If the facility is installed in support of a specific temporary (normally not to exceed 90 days) requirement, enter the four-letter ID as indicated in Chapter 3, paragraph m.

**d. Date/Dates of Inspection Field.** Record the local date(s) of flight inspection as follows: (1) Inspection started and completed in one day: 2/1/88; (2) Inspection conducted over consecutive days: 1/12-15/89; (3) Inspection conducted over several non consecutive days: 8/6, 8, 10/89; and (4) Combined inspections: 10/16, 19-21/89.

**e. Type of Inspection Field.** Enter an "X" in the block to the left of the word signifying the type of inspection completed.

**(1) Identify incomplete or partial inspections** by placing one of the following codes in the block preceding the word incomplete:

<u>TYPE INSPECTION</u>	<u>CODE</u>
Incomplete Periodic	P
Incomplete Commissioning	C
Incomplete Site Evaluation	E
Incomplete Special	S

**(a)** When the inspection is completed, enter an "X" in the block to the left of the type inspection. For a special inspection, whether complete or incomplete, also include the appropriate code, as explained in subparagraph 12e(2).

**(b)** All surveillance inspections shall be considered complete.

**(c)** Shipboard TACAN will always be a complete "Special" inspection reported by placing an "X" in the "Special" block.

**(2) For special inspections,** in addition to placing an "X" in the appropriate block, indicate the reason for the check. Place the appropriate code following the word "Special." Available codes are as follows:

After Accident	AA (see note below)
Air Traffic Control and Landing Systems (ATCALS) Evaluation	TE
Antenna Change	AC
Discrepancy Found (During Surveillance Check)	DF
Frequency Change	FX
Memorandum of Agreement	MA
Maintenance Request	MR
Mobile/Tactical Flight Inspection	MT
On Site Request	OSR
Procedures Check	PROC
Reconfiguration	RF
Shipboard TACAN	SBT
User Complaint	UC
Other (write the reason for the special)	

**NOTE:** Includes RADAR inspection involving a "near mid-air collision." See Order 8200.1A, section 215.

**f. Common System Field.** This field shall be left blank.



**g. Owner Field.** Indicate the actual owner of the facility, regardless of agreements for maintenance, operation, or flight inspection responsibility:

(1) **"International" facilities** are those owned by the foreign government shown in the location field. Indicate here with an "I".

(2) **"Private" facilities** are those owned by nongovernmental interests. This owner is not always indicated in the location field. On commissioning reports only, indicate in the remarks field the actual corporation or organization which owns the facility. Indicate here with a "P."

(3) **On facilities owned by domestic governmental interests other than the Federal Government**, such as a state, city, or county, on commissioning reports only, enter an "S" here and in the remarks field the owning interest.

(4) **"Other" facilities** are those owned by the Federal Government other than FAA, such as U. S. Trust Territory, NASA, U. S. State Department. On commissioning reports only, enter an "O" here and in the remarks field the owning interest.

**NOTE:** If ownership should change, refer to chapter 3, paragraph 21.

#### OWNER CODES

F - FAA  
C - COAST GUARD  
I - INTERNATIONAL  
N - NAVY  
O - OTHER

A - AIR FORCE  
P - PRIVATE  
R - ARMY  
S - STATE, COUNTY, OR CITY

**h. Remarks Field.** See chapter 3.

**i. Facility Status Field.** The appropriate facility status shall be entered in accordance with Section 107 of Order 8200.1A.

**j. Region and Flight Inspection Office (FIO) Fields.**

(1) **The region designator** shall be the authorized 3-letter code for the FAA region in which the reported facility is located. For military-owned facilities and foreign governments, leave blank.

(2) **In the FIO field**, enter the assigned 3-letter code of the office conducting the inspection. If the inspection is done by the military, enter the appropriate military organization.

**k. Flight Inspector's Signature Field.** This field shall contain the signature of the flight inspector in charge of the mission. When a flight inspection is accomplished over multiple dates, with different flight inspectors in charge, and the data obtained is combined on one report, this field shall contain the signature of the flight inspector in charge during the final date of the check. This signature certifies the operational status of the facility and the degree to which the facility supports the approved instrument flight procedure(s) inspected. If only one signature appears on the report, it certifies the completeness and accuracy of all reported data.

**l. Technician's Signature Field.** This field shall contain the signature of the electronic technician and certifies the reported technical data is complete, accurate, and conforms to national standards and specifications. The signature of the electronic technician shall be on all flight inspection reports unless his/her participation is not required for the facility certification. In this case, enter "NA" in place of the signature.

**m. Aircraft Number.** Enter the aircraft registration number (e.g., N99).

**13. REPORTS REVIEW.** Each Flight Inspection Office (FIO) is responsible for the quality and accuracy of its flight inspection reports. The flight inspection supervisors, or an appointed designee, shall review all flight inspection reports and shall initial in the upper right hand corner, "Review Initials" block. These initials indicate a review has been completed, and there are no omissions in the required data.

**14. CORRECTED COPIES OF REPORTS.** If a report must be changed, the originator shall complete an amended version of the report. If the report has been previously distributed, the annotation "Amended Report: Destroy previous copies dated \_\_\_\_\_" shall be entered in the top margin of page 1 and the amended report forwarded to the Flight Inspection Technical Support Branch, AVN-210, for redistribution. After accident (AA) reports, if amended, shall have the annotation "Report Amended" (this date shall be the date the report was amended) entered in the top margin of page 1 and the amended report forwarded to the Flight Inspection Technical Support Branch for redistribution. The "AA" report with the latest amendment date is the final report. All after accident reports, including amendments, shall be retained by the Flight Inspection Technical Support Branch. Any reports that cannot be interpreted by AVN-210 will be returned to the originating organization for clarification.

## **15. SECURITY CLASSIFICATION OF FLIGHT INSPECTION REPORTS.**

**a. Guidance.** The military organization requiring classification of flight inspection reports shall provide classification guidance. The military organization shall be requested to provide this guidance in writing, either by letter or message, and the guidance shall be maintained on file so it can be traced to a classification authority who can justify the initial classification determination (DOD 5200.1-R, Department of Defense Information Security Program Regulation).

**b. Classification Markings.** Flight inspection reports containing classified information shall be marked in accordance with FAA Order 1600.2, National Security Information, to show: degree of classification; name and routing symbol of the FAA employee applying the classification; authority for classification (reference to the military element's letter or message); safeguarding instructions and/or exemption category; and, if an exemption category is provided, date the report can be declassified (if it can be determined). Specific marking instructions can be obtained from the servicing FAA security office.

**c. Control of Reports.** Control, handling, storage, and transmission of classified flight inspection reports shall be accomplished in accordance with FAA Order 1600.2.

**d. Files.** FIO's shall not maintain classified flight inspection facility report files. FIO's shall contact the Civil Aviation Security Division, AMC-700, and obtain a security control number for all classified reports.

## 16. DISTRIBUTION OF REPORTS.

**a. General.** The Flight Inspection Technical Support Branch, AVN-210, shall make the required distribution of all flight inspection reports (except those reports discussed in subparagraph 16b-d). Flight inspection units should forward/distribute (as appropriate) all required copies of flight inspection reports within 21 days after finishing the flight inspection or portions of inspection (progressive periodics, incomplete inspections, etc.).

**b. After Accident (AA) Reports.** After accident reports shall be forwarded/distributed within 14 days. The FIO shall send two copies of the entire AA report, including FAA Form 8240-17, Flight Inspection Report--After Accident Continuation Sheet, and two copies of the complete preceding periodic flight inspection reports to the regional Flight Standards Accident Coordinator/ Investigator. Send the original copy of the complete AA report to the Flight Inspection Technical Support Branch, AVN-210, for normal report distribution. See Appendix 14 for review and completion requirements prior to the above distribution.

**c. General Characteristics Reports.** The FIO shall send one copy of the report to the appropriate regional Flight Procedures Branch and retain the original in the FIO files.

**d. Required Obstruction Clearance (ROC) Studies for Standard Instrument Approach Procedure (SIAP).** No report required.

**e. ILS/MLS Maintenance Alert.** The central scheduling and dispatch facility shall send one copy of the report to the regional maintenance engineering branch and send the original copy to the FIO to be retained in the facility file.

**f. Loran C Report Distribution.** Send the original copy to the Flight Inspection Technical Support Branch, AVN-210. Further distribution to be determined.

**g. GPS Report Distribution.** Send the original copy to the Flight Inspection Technical Support Branch, AVN-210. Further distribution to be determined.

**h. All Other Reports.** Send the original copy to the Flight Inspection Technical Support Branch, AVN-210.

### **i. Standard Distribution.**

#### **(1) FAA.**

##### **(a) Within the contiguous United States:**

**1** Regional Airway Facilities Office having jurisdiction over the facility inspected - one copy.

**2** Airway Facilities Sector having jurisdiction over the facilities inspected - one copy.

**(2) Military reports distribution** shall be completed as per Appendix 19.

**17. - 20. RESERVED.**

### **CHAPTER 3. REQUIRED REPORT REMARKS**

**21. REMARKS FIELD.** Briefly note any additional information required to indicate facility performance. Do not go into detail about the adjustments made to obtain final results unless the inspection was made especially to ascertain the effect of the adjustments or facility configurations (e.g., engineering projects).

**a. Out-of-Tolerance Conditions.**

**(1) Describe each out-of-tolerance or unsatisfactory condition found.** This is not applicable for ILS/MLS parameters reported in fields 9 and 10 of FAA Form 8240-7, Flight Inspection Report--Instrument Landing System or fields 9, 10, and 11 of FAA Form 8240-20, Flight Inspection Report--Microwave Landing System. Where there are no provisions to identify out-of-tolerance facility performance (e.g., FAA Form 8240-2, field 8), place an asterisk next to the out-of-tolerance condition and explain the out-of-tolerance condition in the remarks section of the report.

**(2) Indicate whether or not the condition was corrected.**

**(3) For military facilities,** include a statement that military personnel or units were briefed or advised and the date (e.g., tower/maintenance briefed 4/26/89).

**b. Facility Narrative.** When narrative references are necessary to describe the facility, they shall be given as direct quotes. For example:

**(1) Observation (Permissible)**

"The facility course structure has deteriorated at 210 degrees. Work was noted on a highway near the facility in that sector."

**(2) Unsubstantiated reference (Prohibited).**

"The highway construction southwest of the facility is causing deterioration of the course structure."

**c. Dash Marks.** If a facility parameter/component is not inspected, but should be, place a dash mark in the appropriate space. (Example: When a marker is not checked, place a dash in the facility inspected block, field 8, FAA Form 8240-7. The dash should not be placed in the facility status block). Explain each dashed item in the remarks field.

**d. Site Evaluation, Commissioning, and Special Flight Inspection Reports.** Remarks for these types of inspections shall contain sufficient detail to explain the extent of changes, modifications, and final results so they can be clearly understood by recipients of such reports. Additionally, for a maintenance request or on site request, include the reason for the inspection. Contents of this paragraph do not apply to shipboard TACAN inspections.

**e. Notice to Airmen (NOTAM's)/Restrictions.** Record NOTAM's/restrictions issued, revised, or cancelled as a result of the inspection. Enter the NOTAM/restriction as published or as recommended for military facilities, the identification of the issuing flight service station (FSS, if appropriate), and the date the NOTAM/restriction information was forwarded to the FSS or appropriate military organization. If previous NOTAM or facility restriction remains in effect and is not changed by the present inspection, enter, "NOTAM's (restriction) dated \_\_\_\_\_ remain in effect", in the remarks section of NOTAM block. NOTAM's issued, which do not change facility status, need not be entered once the information is included in the DOD Flight Information Publication, United States Government Flight Information Publication or other appropriate publication. (Example: CAT I glide slope does not meet change/reversal tolerances below a point on the glidepath. NOTAM, Ashville Regional, NC: Rwy 16 ILS glide slope unusable for coupled approaches below 2,000 feet MSL). However, the current NOTAM information as issued will be maintained in the AMIS facility data.

**f. Facility Status.** If a facility classification/status is changed as a result of the flight inspection, enter appropriate remarks to identify the reason for the change along with a verbatim copy of the published NOTAM (see paragraph 21e). Include who was notified and when. Also enter the above information in Block 59 of FAA Form 4040-5.

**g. Approach Lighting System.** When commissioning an approach lighting system, either in conjunction with a NAVAID approach or as a separate system, enter the type of lighting system inspected and its status (e.g., ALSF-1, touchdown zone, and centerline lighting checked "satisfactory" or "unsatisfactory") (see appendix 5, paragraph j).

**h. Standard Instrument Approach Procedures (SIAP's).** After checking a SIAP for compliance with Order 8200.1A, United States Standard Flight Inspection Manual, Section 214, enter the following remark: "SIAP/SIAPs verified IAW Order 8200.1A, USSFIM, Section 214.31." Report the following information for original SIAP(s): Airport name, state, SIAP(s) and amendment number, if applicable (e.g., Tulsa Intl, OK, VOR Rwy 23 Amdt 1). If during a scheduled SIAP evaluation, all SIAPs are not checked, record the airport name, state, SIAP not checked, and amendment number (if applicable). If during a scheduled SIAP evaluation a SIAP is found unsatisfactory, record the SIAP, the airport name, state, and amendment number (if applicable) and describe the unsatisfactory condition in detail. When more than one SIAP is identified on a single page of the DOD Flight Information Publication or United States Government Flight Information Publication, the SIAP verification, when accomplished, shall be entered on the appropriate form, i.e., VOR on FAA Form 8240-2 and GPS on FAA Form 8240-5-1. On after accident reports, if the information is contained on the after accident continuation sheet, an entry in this field is not required.

**i. Facility Name, Owner, Location, Identifier, AMIS Facility Data, or Equipment Change.** If any of these fields are changed, explain the details of the change on the first facility inspection report carrying the revised data (e.g., This report changes the identifier of the facility. The former identifier was (indicate the identifier formerly shown in field 2)).

**j. Expanded Service Volume (ESV).** Whenever the ESV is checked, define the limits of the ESV by facility component, azimuth, distance, and MRA/MAA altitude (azimuth not required on ILS). Enter the date checked.

**k. 75 MHz Marker Beacons which Support an Instrument Approach Procedure.** The certification of the operation of 75 MHz markers shall be documented on the report which certifies the primary NAVAID, (e.g., VOR, ILS, NDB)

**(1) For commissioning checks of 75 MHz markers,** changes of equipment or antennas, enter all checklist items checked and their status (e.g., "satisfactory" or "unsatisfactory"). If dual equipment is installed, the width of the minor axis is required for both transmitters.

**(2) For periodic type inspections,** enter a statement to indicate the marker was checked satisfactorily (e.g., 75 MHz marker system(s) checked "satisfactory" or "unsatisfactory"). This statement is not required on reports which have 75 MHz fields (e.g., ILS reports).

**(3) If any part of the 75 MHz marker system is unsatisfactory,** annotate in this field.

**I. Weather Broadcast Information.** On commissioning reports only, list all weather broadcast capabilities for each facility inspected.

**m. Mobile/tactical facilities installed in support of a specific temporary (normally not to exceed 90 days) requirement** will use a four-letter ID for reporting. Enter the four-letter ID in the ident field. The assignment of the four letter ID's is as follows:

The first letter will always be an X

The second and third letters will indicate the flight inspection office (FIO) or international flight inspection office (IFIO)

AC = Atlantic City  
 OK = Oklahoma City  
 BT = Battle Creek  
 AT = Atlanta  
 SA = Sacramento  
 AN = Anchorage  
 IO = International Office

The fourth letter will indicate the owner

A = Air Force  
 R = Army  
 N = Navy/Marines  
 C = Coast Guard

EXAMPLE: XOKA = Mobile deployment of an Air Force asset inspected by the Oklahoma City (OKC) FIO.

**n. Other.** Enter all other remarks required by the appendixes in this order.

**22.-25. RESERVED.**

**APPENDIX 1. FLIGHT INSPECTION FORMS**

The FAA flight inspection report forms contained in this order are intended to be computer generated. If this process is not available, local reproduction of the forms included in each appendix is authorized.

<b><u>NEW FORM NUMBER</u></b>	<b><u>OLD FORM NUMBER</u></b>	<b><u>TITLE</u></b>
FAA Form 8240-2	None	Flight Inspection Report - VOR, VOR/DME, VORTAC, TACAN, VOT
FAA Form 8240-3	None	VOR, VOR/DME, VORTAC, TACAN ORBITAL Worksheet
FAA Form 8240-4	None	VOR, VOR/DME, VORTAC, TACAN ORBITAL Plot
FAA Form 8240-4-1	None	VOR, VOR/DME, VORTAC, TACAN ORBITAL Data
FAA Form 8240-5	None	Flight Inspection Report - Loran-C
FAA Form 8240-5-1	None	Flight Inspection Report - GPS NP
FAA Form 8240-5-2	None	Flight Inspection Report - GFIS Worksheet
FAA Form 8240-6	None	Flight Inspection Report - Precision Approach Radar
FAA Form 8240-6-1	None	Flight Inspection Report - Precision Approach Radar Continuation Sheet
FAA Form 8240-6-2	None	Flight Inspection Report - Precision Approach Radar TPN-22 Continuation Sheet
FAA Form 8240-7	None	Flight Inspection Report - Instrument Landing System
FAA Form 8240-7-1	None	Flight Inspection Report - ILS/MLS Maintenance Alert
FAA Form 8240-8	None	Flight Inspection Report - Surveillance Radar
FAA Form 8240-9	None	Surveillance Radar Coverage Plot
FAA Form 8240-14	None	Flight Inspection Report - General Characteristics

<u>NEW FORM NUMBER</u>	<u>OLD FORM NUMBER</u>	<u>TITLE</u>
FAA Form 8240-15	None	Flight Inspection Report - Continuation Sheet
NOTE: Use this continuation sheet when additional space is required to document facility performance (see figure 1). Use the same heading information as in the primary report.		
FAA Form 8240-16	None	Flight Inspection Report - Instrument Landing System Supplement Sheet
FAA Form 8240-17	None	Flight Inspection Report - After Accident Continuation Sheet
FAA Form 8240-18	None	Flight Inspection Report - Localizer Clearance Plot
FAA Form 8240-18-1	None	Flight Inspection Report - Abbreviated Localizer Clearance Plot
FAA Form 8240-19	None	Flight Inspection Report - Non-directional Beacon, Direction Finding, Visual Aids, Communications
FAA Form 8240-20	None	Flight Inspection Report - Microwave Landing System
FAA Form 8240-21	AC-8240-1	ILS Worksheet
FAA Form 8240-21-1	None	ILS Continuation Worksheet
FAA Form 8240-22	AC-8200-14	Facility Data



**APPENDIX 1. FLIGHT INSPECTION FORMS**  
**FIGURE 1. FLIGHT INSPECTION REPORT--CONTINUATION SHEET**

PAGE	OF	PAGES
<b>FLIGHT INSPECTION REPORT--CONTINUATION SHEET</b>		REVIEW INITIALS
1. LOCATION:		2. IDENT:
3. FACILITY TYPE:	4. DATE / DATES OF INSPECTION:	

**APPENDIX 2. FLIGHT INSPECTION REPORT--VOR, VOR/DME,  
VORTAC, TACAN, VOT,  
FAA FORM 8240-2**

Record the following:

**a. Fields 1--6** - Complete as shown in chapter 2, paragraph 12.

**b. Field 7 - Facility/Component Inspected.** Check the appropriate block(s) to signify all components of the facility being reported. If only the VOR portion of a VORTAC facility has been checked, place an "X" in the VORTAC block and an "X" in the VOR block. For VOR/DME facilities, place an "X" in the VOR/DME block. If only the VOR portion of the VOR/DME has been checked, place an "X" in the VOR/DME block and an "X" in the VOR block.

**c. Field 8 - Radial Data.**

**(1) Service Designation (Desig).** Label each column with the facility designator pertaining to the reported information (e.g., VOR, TAC).

**(2) Radial Use.** Indicate radial use by an abbreviation (if no procedural use, leave the block blank). Some standard examples are as follows:

ARR	Automated Flight Inspection System (AFIS)
Ref	Reference Radial
V16	Airway
GCP	Ground Receiver Checkpoint
ACP	Airborne Receiver Checkpoint
Apch	Approach
IApch	Initial Approach
MApch	Missed Approach
J180	Jet Route
Dir	Direct Route
RNAV	Area Navigation (RNAV) Procedures
Null	Null Radial
5DEG	Offset (Special Check) of VOR APCH
FEDR	Feeder
INTX	Radial Used to Support a Fix or Intersection

Other abbreviations may be used if explained in "remarks" portion of report.

**(3) Azimuth.** Enter the magnetic azimuth from the facility (in whole degrees). For RNAV procedures, enter the start/stop azimuth (e.g., 120/060). For a VOT, designate azimuth as "360/from."

**(4) Transmitter (s).** Identify the transmitter checked. If transmitters were alternated during one flight, enter the transmitter "1" or "2" first (whichever had the greatest alignment error), in the "transmitters" block (e.g., 2/1 for TX 2 having the greatest error).

**(5) MSL Altitude.** Enter the altitude divided by 100 (e.g., "20" for 2,000 feet, "7.2" for 720 feet). If altitude changes occurred, enter the highest and lowest altitudes in the order checked (e.g., 25/20). Leave blank when reporting ground checkpoints.

**(6), (7) Distance From/To.** Show the starting point (From) and the termination point (To), in nautical miles, of the radial or RNAV procedure being reported.

**(8), (9), (10) Roughness and Scalping, Bends, and Polarization.** If these parameters are in tolerance, enter the maximum amplitude to the nearest tenth of a degree and indicate the distance from the station (e.g., 2.2/16.0). If these parameters are out-of-tolerance, enter the out-of-tolerance (amplitude/distance). When reporting en route radial roughness and/or scalping that exceeds 3.0 degrees but meets operational tolerances because of the distance and altitude criteria, report the worst case of actual roughness and scalping, the mileage where it occurred, and place an asterisk in the reporting block, e.g., \*5.0<sup>0</sup>/25.5. In the remarks section, place a corresponding asterisk and state "Order 8200.1A, paragraph 201.51f(2) applied." If multiple distance segments require separate entries, enter in the remarks section. The reported scalping and roughness is combined. For RNAV procedures, report the azimuth of the maximum roughness and scalping (e.g., 1.5/010).

**(11) Alignment Error.** Enter the alignment error, as a "+" or "-" value, and the distance from the facility at which it occurs. If automated flight inspection system (AFIS) average alignment is reported, indicate the alignment and distance that was sampled (e.g., + 0.5/10-24). Enter an "S" for satisfactory or "U" for unsatisfactory when approach alignment evaluations are by visual references to runway thresholds or airport environments. When an RNAV procedure is evaluated using AFIS orbital techniques, enter the average orbit alignment error.

**(12) Modulations.** For VOR, enter "S" for satisfactory or "U" for unsatisfactory. For TACAN, no entry is required.

**(13) Transmitter Difference.** Enter the difference of course alignment between transmitters, to the nearest tenth of a degree.

**(14) Signal Strength.** Enter the lowest VOR signal strength in microvolts, during the radial evaluation. Report TACAN signal strength as satisfactory "S" or unsatisfactory "U."

**(15) Interference.** Enter "S" if no interference noted; enter "U" if interference is noted, and document the area of interference in remarks field.

**d. Field 9 - General.** If any of these items are inspected, enter an "X" in the appropriate blocks (i.e., satisfactory (SAT) or unsatisfactory (UNSAT)).

**e. Field 10 - Monitors.** Complete this field when monitor checks are performed.

**(1) Last Date Inspected.** Enter the month, day, and year of the monitor check for each facility/component checked, except:

**(a)** When a commissioning flight check is conducted over multiple dates, do not enter a date until the check is complete. The date entered will be the final date of the inspection. (Example: Dates entered in Field 4 are: 10/18, 11/12-14, 11/21/94; the date to be entered in "Last Date Inspected" is: 11/21/94). To maintain continuity of data, carry forward monitor check information on each succeeding check until the flight check is complete, then include the final date of the inspection and the monitor check information. When inspecting a VOT, cross out VOR, and enter VOT below it.

**(2) Reference Radial.** Enter the azimuth and distance of the reference checkpoint and the altitude flown divided by 100 (e.g., 265.5/18.3/45). For AFIS, enter the acronym "ARR" (automated flight inspection system reference radial), the azimuth, the segment distance (to the nearest mile), and the altitude flown divided by 100 (e.g., ARR 270/20-15/45). For a VOT, enter the azimuth 360 degrees/from (e.g. 360/from ).

**(3) Checkpoint.** Enter the location where the monitors were evaluated. If evaluated airborne, enter the location as done for the reference radial. If monitors are checked where the reference checkpoint/radial was evaluated, enter "Same." If the monitors are established on the ground, enter the azimuth and distance of the airport location and the term "Gnd" (e.g., 041.1/6.7/Gnd). Describe the airport location in the remarks field (carrying forward the airport location on subsequent reports is optional). For a VOT, enter "VRP" if VOT Reference Point is used for monitor evaluation. If not, enter an \* and describe, in remarks, the checkpoint location where the monitor evaluation was accomplished.

**(4) TX Alignment, Alarm +, Alarm -.** Use the appropriate blocks to report the results of the monitor checks. (when inspecting a VOT cross out VOR and enter VOT below it).

**(a)** Enter the transmitter evaluated under "TX". If a monitor check is conducted on facilities which have two individual monitors and require evaluations on each transmitter, enter Tx 1 information on first line and Tx 2 information on second line as in the following example.

**(b)** Enter the alignment error determined at the reference checkpoint, or ARR if AFIS is used with the transmitter azimuth in the normal monitor condition.

**(c)** Enter the amount the azimuth shifts (+ is clockwise, AFIS code "R"; - is counterclockwise, AFIS code "L") in the "alarm +" and "alarm -" columns.

	<u>TX</u>	<u>ALIGNMENT</u>	<u>ALARM +</u>	<u>ALARM -</u>
Reference Radial				
ARR270/20-15/45	1	-0.4	0.9	0.8
Checkpoint				
Same	2	-0.5	0.8	0.7

(d) If a monitor check is accomplished on the ground, or at a point other than the reference radial, enter the results as in the following example:

	<u>TX</u>	<u>ALIGNMENT</u>	<u>ALARM +</u>	<u>ALARM -</u>
Reference Radial ARR 270/20-15/45	1	-0.4	0.9	0.8
Checkpoint 042.0/6.7 Gnd.	2	-0.5	0.8	0.7

**f. Field 11 - Remarks.** Complete as shown in chapter 3. Additionally, after commissioning or reestablishing a receiver checkpoint, describe it in this field. Include the airport name and state (if on an airport), altitude at which check is made (airborne checkpoints), azimuth in degrees magnetic, the distance in miles, checkpoint description (e.g., Ground checkpoint: University of IL-Willard, IL, 332 degrees, .9 NM, On runup pad Rwy 14; Airborne checkpoint: 2000', 175 degrees, 8.0 NM, Over grain elevator at Pesotum). The National Flight Data Center, ATM-613, Washington, D.C. 20591, shall be notified of the establishment or cancellation of ground receiver checkpoints. Additionally, responsible facility maintenance personnel, airport management, and AFO-540 shall be notified. For commissioning or when reestablishing an alignment orbit, report the altitude, distance, and direction (CW or CCW) of the alignment orbit for each facility. Include this information in the remarks field of the Aircraft Management Information System (AMIS) facility data sheet. If at a later date, a different altitude, distance, and orbit direction is established, annotate the change as listed above.

**g. NOTAM's.** Complete as shown in chapter 3, paragraph 21.

**APPENDIX 2. FLIGHT INSPECTION REPORT--VOR, VOR/DME,VORTAC, TACAN, VOT**  
**FIGURE 1. FAA FORM 8240-2**

FLIGHT INSPECTION REPORT--VOR,VOR/DME,VORTAC,TACAN, VOT												REVIEW INITIALS			
1. LOCATION:												2. IDENT:			
3. COMMON SYSTEM:				4. DATE/DATES OF INSPECTION:						5. OWNER:					
6. TYPE OF INSPECTION				SITE EVALUATION		PERIODIC		SPECIAL							
				COMMISSIONING		SURVEILLANCE		INCOMPLETE							
7. FACILITY / COMPONENT INSPECTED				<input type="checkbox"/>	VOR	<input type="checkbox"/>	VOR / DME	<input type="checkbox"/>	VORTAC	<input type="checkbox"/>	TACAN	<input type="checkbox"/>	VOT	<input type="checkbox"/>	DME
8. RADIAL DATA															
SERVICE DESIGNATION															
RADIAL USE															
AZIMUTH															
TRANSMITTER (S)															
MSL ALTITUDE															
DISTANCE FROM															
DISTANCE TO															
ROUGHNESS/SCALLOPING															
BENDS															
POLARIZATION															
ALIGNMENT ERROR															
MODULATIONS															
TRANSMITTER DIFF.															
SIGNAL STRENGTH															
INTERFERENCE															
9. GENERAL		SAT	UNSAT	10. MONITORS											
STANDBY POWER				LAST DATE INSPECTED	VOR:	TACAN:		T X	ALIGN	ALARM +	ALARM -				
VOICE				V O R	REFERENCE RADIAL:	/	-	/							
IDENTIFICATION					CHECK POINT:	/		/							
DME ACCURACY				T A C	REFERENCE RADIAL:	/	-	/							
DME COVERAGE					CHECK POINT:	/		/							
11. REMARKS:															
FACILITY STATUS		NOTAM'S:													
UNRESTRICTED															
RESTRICTED															
UNUSABLE															
REGION:	FLIGHT INSPECTOR 'S SIGNATURE:				TECHNICIAN 'S SIGNATURE:				AIRCRAFT NO :						
FIO:															

FAA FORM 8240 - 2 (6/95) (FORMFLOW)

**APPENDIX 3. VOR, VOR/DME, VORTAC, TACAN ORBITAL  
WORKSHEET, FAA FORM 8240-3**

The VOR, VOR/DME, VORTAC, TACAN Orbital Worksheet may be used by field personnel for preparing FAA Form 8240-4, VOR, VOR/DME, VORTAC, TACAN Orbital Plot. The form may be accessed when using the Automated Flight Inspection Form System by selecting FAA Form 8240-4 or FAA Form 8240-3 on the Flight Inspection Form System Main Menu, then selecting page 2. The worksheet will not be included as part of the report. The data entered into the worksheet may be transferred to the appropriate fields used in the preparation of FAA Form 8240-4.

**a. Field 1.** Complete as shown in Chapter 2, Paragraph 12.

**b. Field 2..** Complete as shown in Chapter 2, Paragraph 12..

**c. Field 3. AFIS DATA.** Enter azimuth errors (+ or -) in the appropriate columns for the portion of orbit accomplished. The errors may be entered every 5 or 10 degrees (option available when selecting automated FAA Form 8240-4 from the Flight Inspection Form System Main Menu). When all orbital data has been entered, the azimuth error data may be transferred to FAA Form 8240-4, Field 4, from FAA Form 8240-3 by selecting the plot option. Additionally, the VOR and TACAN mean alignment and the minimum, maximum errors displayed at the bottom of Field 3 may be transferred to their appropriate locations on FAA Form 8240-4.

### FIGURE 1. FAA FORM 8240-3

REVIEW INITIALS

Mean Alignment

<input type="checkbox"/> VOR 1:	<input type="checkbox"/> VOR 2:	<input type="checkbox"/> TACAN 1:	<input type="checkbox"/> TACAN 2:
Min:      Max:	Min:      Max:	Min:      Max:	Min:      Max:



**APPENDIX 4. VOR, VOR/DME, VORTAC, TACAN ORBITAL PLOT, FAA FORM 8240-4;**  
**AND**  
**VOR, VOR/DME, VORTAC, TACAN ORBITAL DATA, FAA FORM 8240-4-1**

This report shall be completed whenever an alignment orbit is required by the VOR or TACAN checklist (see Order 8200.1A, Section 201), or as deemed necessary. When VORTACs with standby equipment are checked, complete a separate form for the standby equipment. Additional forms may be used if needed for clarity. This report may be used for coverage orbits if statements in the remarks section of FAA Report Form 8240-2 do not adequately define the areas of coverage. Record the following information:

**1. FAA Form 8240-4: VOR, VOR/DME, VORTAC, TACAN Orbital Plot**

**a. VOR, TACAN, DME.** Check one or more of the blocks at the right of the title block to show which components are plotted.

**b. Fields 1 - 2.** Complete as shown in chapter 2, paragraph 12.

**c. Field 3 - Altitude.** If a constant altitude is flown throughout the orbit, enter the altitude divided by 100 in the center of this field. If altitude changes are made during the orbit, mark with a dot the azimuth at which altitude changes occurred (use the azimuth scale at the bottom of field 4). Enter the altitude divided by 100 between dots of equal altitude.

**d. Field 4 - Azimuth Error (+ or -).** Plot the course displacement observed during the orbit. Use the plotting codes shown at the top of this field if more than one component or transmitter is plotted; if only one component or transmitter is plotted, use a solid line. Plot the error every 10.0 degrees and the start/stop points of partial orbits, using the azimuth scale at the bottom for reference. Plot out-of-tolerance areas to an accuracy of 2.0 degrees. Comprehensive alignments, when they are required, shall be plotted each 5.0 degrees. Copies of the AFIS printout for VOR and TACAN orbit information may be used in lieu of a plotted graph (use FAA Form 8240-4-1 to make copies).

**e. Field 5 - Checkpoint Location.** Place a dot at each checkpoint using the azimuth scale in field 4 or 9 as reference. If a theodolite was used, enter the word "Theodolite" in the center of this field; if AFIS was used, enter the word "AFIS;" if shipboard, enter radar type if used.

**f. Field 6 - DME Distance Unlocks.** Enter a horizontal line in the areas where DME "unlock" conditions were observed during the orbit. Use the azimuth scale in field 4 or 9 as reference.

**g. Field 7 - TACAN Azimuth Unlocks.** Enter a horizontal line to show the portions of the orbit where a TACAN azimuth "unlock" condition is observed. Use the azimuth scale in field 4 or 9 as reference.

**h. Field 8 - Area of Interference.** Enter a horizontal line to indicate the areas where interference is observed, if such interference is considered to have detrimental effect on the usability of the facility. Use the azimuth scale in field 4 or 9 as reference.

i. **Field 9 - Roughness and Scalloping + or -.** If roughness and scalloping in excess of  $\pm 1.0$  degree is observed, plot the amplitude on this graph, using the appropriate plotting codes shown at the top of field 4. Plot maximum roughness and scalloping in each 10-degree sector on the 10-degree increment line. Use the azimuth scale at the bottom for guidance.

j. **Field 10 - VOR/TACAN Coverage Signal Strength.** Plot VOR signal strength using the plotting codes shown at the top, left side of the field, if the signal strength drops below -93 dbm. For U.S. Navy shipboard TACAN's and other TACAN's or DME's, use the TACAN coverage plotting codes on the right side of this field and plot the TACAN or DME signal strength when the signal strength drops to a level which causes a condition of azimuth or distance unlock. If other plotting techniques are used, explain in field 11.

k. **Field 11 - Remarks.** Enter any information that will clarify or be of assistance in interpreting the reported data. Include mean alignment, when accomplished.

l. **Field 12 - Orbital Error Spread.** Enter the maximum negative and the maximum positive alignment error (include the sign) plotted on the graph in field 4, as well as the algebraic difference between the two. Mark the "TX" block for VOR and designate the transmitter number. Mark the "TP" block for TACAN and designate the transponder number.

m. **Field 13 - Orbit Radius.** Enter the radius of the orbit in nautical miles, e.g., 6 nm.

## 2. FAA Form 8240-4-1: VOR, VOR/DME, VORTAC, TACAN Orbital Data

a. **Field 1.** Complete as shown in Chapter 2, Paragraph 12.

b. **Field 2.** Complete as shown in Chapter 2, Paragraph 12.

c. **Field 3.** Copy AFIS printout for VOR and/or TACAN orbit information (may be used in lieu of FAA Form 8240-4, Field 4).

## PAGE OF PAGES

FAA FORM 8240 - 4 (4/97) (FORMFLOW)

**FIGURE 2. FAA FORM 8240-4-1**

FAA FORM 8240-4-1 (11/95) (FORMFLOW)

**APPENDIX 5. FLIGHT INSPECTION REPORT--NONDIRECTIONAL BEACON  
DIRECTION FINDING, VISUAL AIDS, COMMUNICATIONS, FAA FORM 8240-19**

This report shall be used to report the results of all commissioning, periodic, special inspections, and after accidents of the aids listed above. The periodic and special inspections of visual aids or NDB's that support an ILS system shall be reported on FAA Form 8240-7. If the NDB is used as an LOM for an ILS, and the NDB also supports an NDB approach, two reports are required when the periodic is also conducted on the NDB approach.

**a. Field 1 - Location.** Complete as shown in chapter 2, paragraph 12, and the NDB name.

**b. Field 2 - Identifier (Ident).** Enter the location identifier listed on the AMIS facility data sheet. All visual aids serving a particular runway not associated with an ILS, localizer (LOC), simplified directional facility (SDF), or microwave landing system (MLS) will use the airport identifier and an alpha subcode (e.g., Will Rogers World, runway 12 visuals identification, OKCA, runway 17L visuals identification, OKCB).

**c. Field 3 - Common System.** Complete as shown in chapter 2, paragraph 12.

**d. Field 4 - Date/Dates of Inspection.** Complete as shown in chapter 2, paragraph 12.

**e. Field 5 - Owner.** Complete as shown in chapter 2, paragraph 12.

**f. Field 6 - Type of Inspection.** Complete as shown in chapter 2, paragraph 12.

**g. Field 7 - Facility/Component Inspected.** Place an "X" in the appropriate block indicating the facility being inspected.

**h. Field 8 - Nondirectional Beacon.**

**(1) Radio Class Code.** Enter the applicable code as it appears in the FAA AMIS data unless information is changed by the report. Identify UHF facilities by adding "UHF." If inspecting the DME only of an NDB/DME, leave blank.

**(2) Frequency.** Enter the published frequency of the NDB.

**(3) DME Channel.** If an NDB/DME is inspected, enter the published DME channel.

**(4) Items Checked.** Enter an "X" in the appropriate block to indicate the item inspected did or did not meet prescribed tolerances. The bearing accuracy block may be left blank, except for UHF homing beacons. If voice is inspected on a periodic inspection, mark the appropriate "SAT" or "UNSAT" block.

**i. Field 9 - Direction Finding.**

**(1) Checkpoint.** For AFIS, leave blank. For manual, describe checkpoints in remarks.

**(2) Aircraft Altitude.** Enter the aircraft's altitude over the checkpoint, divided by 100 (e.g., "50" for 5,000 feet).

**(3) Aircraft Distance.** Enter the distance of the aircraft from the antenna to the nearest mile.

**(4) Bearing/Aircraft.** Enter the aircraft's magnetic azimuth, to the nearest degree from the direction finding (DF) antenna, when the DF bearing is given.

**(5) Bearing/DF.** Enter the bearing, to the nearest degree, issued by the controller.

**(6) Bearing/Error.** Enter the difference between the aircraft azimuth and the bearing issued by the controller (e.g., aircraft azimuth 331 degrees, issued bearing 333 degrees, the error is -2.0 degrees).

**(7) Frequency Used.** Enter the frequency used to obtain the DF bearing.

**(8) Station Passage.** Enter an "X" in the appropriate block. If not required, leave blank.

**(9) Standby Power.** Enter an "X" in the appropriate block. If not checked, leave blank.

NOTE: Whenever an alignment orbit is flown (e.g., commissioning check, maintenance request, and as determined by the flight inspector), it may require several pages of DF checkpoints to satisfy the requirements of a complete orbit.

**j. Field 10 - Visual Aids.**

**(1) Facility Inspected.** Check the appropriate block to indicate the facility or facilities inspected. If the visual system inspected is not of the type covered by the four blocks, insert an asterisk after facility inspected and describe in field 13.

NOTE: More than one type of visual system may be indicated in this field, provided the flight inspector shows clearly which facility each entry refers to and the entries in fields 1, 2, 4, and 6 are common to each facility. If these provisions cannot be met, complete separate forms.

**(2) Runway(s) Served.** Enter the numerical (and alphabetical when appropriate) designators which have been published to identify the runways served by the system(s) being reported.

**(3) Items Checked.** Enter an "X" in the appropriate block to indicate that an item inspected did or did not meet operational tolerances. Additionally, when visual glide slope indicator (VGSI) facilities are being checked:

(a) If facility angle was established during installation, utilizing an FAA-approved aiming device, enter the commissioned angle following "glide slope angle" (e.g., 3.00°/\*). Also reference the employment of the aiming device in the "Remarks" block (Field 13), or

(b) If an FAA-approved aiming device was not used and/or an angle check is requested, enter the commissioned angle and the angle determined during the inspection following "glide slope angle" (e.g., 3.00°/2.95°), or

(c) If the commissioned angle is unknown and/or the angle is not determined during the inspection, enter an asterisk following "glide slope angle" (e.g., \*/\*) and explain in the "Remarks" field.

**k. Field 11 - Communications.** Check the appropriate block to indicate the facility being inspected. In cases where Pilot-to-Forecaster or Combined Station Tower were checked, enter P/F or CS/T in the block following "Communications" and enter an "X" in the "other" block. Several frequencies may be listed on one line when the "X's" placed in the blocks on that line are common to all frequencies listed.

**l. Field 12 - Approach.** Complete as shown in Chapter 3, paragraph 21. If necessary, list additional SIAP's in field 13.

**m. Field 13 --Remarks.** Complete as defined in chapter 3.

**(1) Nondirectional Beacons.** When routes are flown, enter the bearing, altitude, and distance flown (e.g., 030/2800/45.0). When the NDB is also used as a compass locator/marker (LOM or LMM) associated with an ILS system, enter the ILS identification on commissioning reports only (e.g., LOM associated with RGR ILS).

**(2) Visual Aids.** Indicate if the inspection was conducted at night (e.g., "runway end identifier lights (REIL) evaluated at night). Omission of this remark will indicate the check was conducted during the daytime. If the visual aid supports an ILS procedure, enter the ILS identification on commissioning reports only (e.g., approach lighting system (ALS) supports RGR ILS).

**n. NOTAM's.** Complete as shown in chapter 3, paragraph 21e.

**APPENDIX 5. FLIGHT INSPECTION REPORT--NDB, DIRECTION FINDING,  
VISUAL AIDS, COMMUNICATIONS**  
**FIGURE 1. FAA FORM 8240-19**

FLIGHT INSPECTION REPORT--NONDIRECTIONAL BEACON, DIRECTION FINDING, VISUAL AIDS, COMMUNICATIONS															REVIEW INITIALS	
1. LOCATION:												2. IDENT:				
3. COMMON SYSTEM:				4. DATE/DATES OF INSPECTION:								5. OWNER:				
6. TYPE OF INSPECTION				SITE EVALUATION				PERIODIC				SPECIAL				
				COMMISSIONING				SURVEILLANCE				INCOMPLETE				
7. FACILITY / COMPONENT INSPECTED				DIRECTION FINDING		NDB		NDB / DME		COMMUNICATIONS			VISUAL AIDS			
8. NONDIRECTIONAL BEACON																
RADIO CLASS CODE:				FREQUENCY:				DME CHANNEL:								
ITEMS CHECKED			S A T	UNSAT	ITEMS CHECKED			SAT	UNSAT	ITEMS CHECKED			S A T	UNSAT		
IDENTIFICATION					COVERAGE					STATION PASSAGE						
INTERFERENCE					NEEDLE OSCILLATIONS					STANDBY EQUIPMENT						
VOICE					BEARING ACCURACY					STANDBY POWER						
9. DIRECTION FINDING																
CHECKPOINT	AIRCRAFT ALTITUDE	AIRCRAFT DISTANCE	BEARING			FREQUENCY USED										
			AIRCRAFT	D F	ERROR											
STATION PASSAGE			SATISFACTORY		UNSATISFACTORY		STANDBY POWER			SATISFACTORY		UNSATISFACTORY				
10. VISUAL AIDS																
FACILITY INSPECTED			ALS	REIL	VASI	PAPI	RUNWAY (S) SERVED:									
ITEMS CHECKED			S A T	UNSAT	ITEMS CHECKED			SAT	UNSAT	ITEMS CHECKED			S A T	UNSAT		
INTENSITY					ANGULAR COVERAGE					SEQUENCE FLASHERS						
GLIDE SLOPE ANGLE					OBST. CLEARANCE (VGS)					FOCUS AND ADJUSTMENTS						
COINCIDENCE					RUNWAY LIGHTS					RADIO CONTROL SYSTEM						
11. COMMUNICATIONS				APPROACH CONTROL			F S S		TOWER		CENTER		OTHER			
FREQUENCY USED				PRIMARY		SECONDARY		VOICE QUALITY		COVERAGE		STANDBY POWER				
				S A T	UNSAT	S A T	UNSAT	S A T	UNSAT	S A T	UNSAT	S A T	UNSAT			
12. APPROACH:												SAT				
												UNSAT				
13. REMARKS:																
FACILITY STATUS		NOTAM's:														
UNRESTRICTED																
RESTRICTED																
UNUSABLE																
REGION:		FLIGHT INSPECTOR 'S SIGNATURE:					TECHNICIAN 'S SIGNATURE:					AIRCRAFT NO :				
FIO:																

FAA FORM 8240 - 19 (6/95) (FORMFLOW)



**APPENDIX 6. FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR,**  
**FAA FORM 8240-6;**  
**FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR**  
**CONTINUATION SHEET, FAA FORM 8240-6-1;**  
**AND FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR**  
**TPN-22 CONTINUATION SHEET, FAA FORM 8240-6-2**

**1. FAA FORM 8240-6, FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR.**

**a. Field 1 - Location.** Complete as shown in chapter 2, paragraph 12.

**b. Field 2 - Identifier (Ident).** Enter the airport identification. If more than one PAR facility is installed at the same airport, identify each PAR with an alpha subcode (e.g., TIKa, TIKB).

**c. Field 3 - Common System.** Complete as shown in chapter 2, paragraph 12.

**d. Fields 4--6.** Complete as shown in chapter 2, paragraph 12.

**e. Field 7 - Equipment Type Designation.** Enter the type of equipment inspected (e.g., MPN-11, GPN-22, or TPN-19).

**f. Field 8 - Azimuth Radar.** Under the designated channel enter an "X" in the appropriate block to indicate that an item was inspected and that it did or did not meet operational tolerance.

**g. Field 9 - Elevation Radar.**

**(1) Under the designated channel** enter an "X" in the appropriate block to indicate that an item was inspected and that it did or did not meet operational tolerance.

**(2) Rwy No.** In this block, enter the runway numbers served by the PAR; in the "Published Angle" blocks enter the commissioned angles of the PAR serving the runways; in the "Actual Angle" blocks enter the measured PAR angles serving the runways. If actual angle not checked, leave blank. If necessary, make additional entries in field 12.

**h. Field 10 - Approaches.**

**(1) Runway.** Enter the number of the runway to which the approach was made.

**(2) Polarization.** Indicate the type of polarization used during the approach (e.g., circular polarization (CP) or linear polarization (LP)). For computer-generated radars, enter circular polarization (CP).

**(3) Moving Target Indicator (MTI).** Enter "Y" (Yes) or "N" (No) to show if the MTI feature was used during the approach.

**(4) Other Approach Conditions.** This space is to be utilized to indicate any condition pertinent to the approach (e.g., lower safe limit check, adverse weather conditions).

**(5) SAT/UNSAT.** Enter an "X" in the appropriate block to show if the approach was satisfactory or unsatisfactory.

**i. Field 11 - General.**

**(1) Item.** Enter an "X" in the appropriate block to show what item was inspected and that it did or did not meet operational tolerance.

**(2) Frequencies Used.** List the frequencies inspected in the appropriate block.

**j. Field 12 - Remarks.** Complete as defined in chapter 3. Enter additional remarks, such as:

**(1)** When PAR equipment has been replaced or when a major modification has been performed.

**(2)** When azimuth or elevation MTI is required on the final approach. (This requirement does not constitute a facility restriction.)

**k. NOTAM's.** Complete as shown in chapter 3, paragraph 21.

**2. FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR CONTINUATION SHEET, FAA FORM 8240-6.1.**

**a. Field 1 - Location.** Enter as in field 1, FAA Form 8240-6.

**b. Field 2 - Identifier (Ident).** Enter as in field 2, FAA Form 8240-6.

**c. Field 3 - Date/Dates of Inspection.** Enter as in field 4, FAA Form 8240-6.

**d. Field 4 - Computer Generated Precision Approach Radar Run Configurations.**

NOTE: Form abbreviations are as follows:

FTC	- Fast Time Constant
ACQ	- Acquisition
MTI	- Moving Target Indicator
RWY	- Runway
CK'S	- Checks Required
NOR	- Normal
BK UP	- Back Up
AUTO	- Automatic
COH	- Coherent

NON-COH	- Noncoherent
CFAR	- Constant False Alarm Rate
ALS	- Automatic Landing Subsystem
S/N	- Serial Number
C	- Commissioning
P	- Periodic

(1) Asterisks indicate the required configuration for each run.

(2) Enter an "X" in the appropriate blocks to show which configuration was actually checked.

(3) The "Checks Required" columns shows which runs are necessary to satisfy commissioning and periodic requirements.

(4) Enter receiver sensitivity, clutter (rain) reject, etc., in the blocks provided, as required in Order 8200.1A, paragraph 216.311.

**e. Field 5 - Remarks.** Enter comment for each feature which either is not available in the required configuration or produces an unsatisfactory or out-of-tolerance result.

### 3. FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR TPN-22 CONTINUATION SHEET, FAA FORM 8240-6-2.

**a. Field 1 - Location.** Enter as in field 1, FAA Form 8240-6.

**b. Field 2 - Identifier (Ident).** Enter as in field 2, FAA Form 8240-6.

**c. Field 3 - Date/Dates of Inspection.** Enter as in field 4, FAA Form 8240-6.

**d. Field 4 - Computer Generated Precision Approach Radar Run Configurations.**

(1) Asterisks indicate the required configuration for each run.

(2) Enter an "X" in the appropriate blocks to show which configuration was actually checked.

(3) The "Checks Required" columns show which runs are necessary to satisfy commissioning and periodic requirements.

**e. Field 5 - Enter program data** as required in Order 8200.1A, paragraph 216.311.

**f. Field 6 - Remarks.** Enter comment for each feature which either is not available in the required configuration or produces an unsatisfactory or out-of-tolerance result.

APPENDIX 6. FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR  
FIGURE 1. FAA FORM 8240-6

FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR										REVIEW INITIALS	
1. LOCATION:										2. IDENT:	
3. COMMON SYSTEM:				4. DATE/DATES OF INSPECTION:						5. OWNER:	
6. TYPE OF INSPECTION				SITE EVALUATION		PERIODIC		SPECIAL			
				COMMISSIONING		SURVEILLANCE		INCOMPLETE			
7. EQUIPMENT TYPE DESIGNATION:											
8. AZIMUTH RADAR		CHANNEL "A"		CHANNEL "B"		9. ELEVATION RADAR		CHANNEL "A"		CHANNEL "B"	
		SAT.	UNSAT.	SAT.	UNSAT.			SAT.	UNSAT.	SAT.	UNSAT.
COURSE ALIGNMENT						GLIDE SLOPE ALIGNMENT					
DEVIATION ACCURACY						RANGE ACCURACY					
RANGE ACCURACY						COVERAGE					
COVERAGE						RWY NO:		PUBLISHED ANGLE		ACTUAL ANGLE	
MTI						RWY NO:		PUBLISHED ANGLE		ACTUAL ANGLE	
10. APPROACHES											
RUNWAY	POLARIZATION	MTI		OTHER APPROACH CONDITIONS						SAT.	UNSAT
11. GENERAL											
ITEM		SAT.		UNSAT		FREQUENCIES USED					
CONTROLLER PERFORMANCE						FOUND SATISFACTORY			FOUND UNSATISFACTORY		
ILS/MLS/PAR COINCIDENCE											
STANDBY EQUIPMENT											
STANDBY POWER											
APPROACH LIGHTS											
12. REMARKS:											
FACILITY STATUS		NOTAM's:									
UNRESTRICTED											
RESTRICTED											
UNUSABLE											
REGION:		FLIGHT INSPECTOR'S SIGNATURE:				TECHNICIAN'S SIGNATURE:				AIRCRAFT NO:	
FIO:											

FAA FORM 8240 - 6 (6/95) (FORMFLOW)

**APPENDIX 6. FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR  
CONTINUATION SHEET  
FIGURE 2. FAA FORM 8240-6-1**

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<b>FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR CONTINUATION SHEET</b>											REVIEW INITIALS	
1. LOCATION:											2. IDENT:	
3. DATE/DATES OF INSPECTION:												
<b>4. COMPUTER GENERATED PRECISION APPROACH RADAR RUN CONFIGURATIONS</b>												
R U N	T R A C K   M O D E		F T C		A C Q		M T I		R W Y	A N G L E	C K ' S	
	N O R	B K   U P	O N	O F F	A U T O	O F F	C O H	N O N - C O H			" C "	" P "
1. "A" CURSOR PRIMARY	*		*		*		*				X	X
2. "A" CURSOR PRIMARY		*		*		*		*			X	
3. "A" CURSOR BACK UP	*		*		*		*				X	
4. "B" CURSOR BACK UP	*		*		*		*				X	
5. "B" CURSOR PRIMARY	*		*		*		*				X	X
<b>* FEATURES REQUIRED</b>												
RECEIVER SENSITIVITY						CLUTTER (RAIN) REJECT						
NOR: _____ NON-COH: _____ COH: _____						YES: _____ NO: _____ N/A: _____						
TAPE (PRIMARY)						USABLE RANGE ON						
PART #: _____ VERSION #: _____ S/N: _____						20 NM RADAR: _____						
TAPE (STANDBY)						DIGITAL MTI BASELINE						
PART #: _____ VERSION #: _____ S/N: _____						LIMITING SETTINGS _____						
5. REMARKS:												

**APPENDIX 6. FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR  
TPN-22 CONTINUATION SHEET  
FIGURE 3. FAA FORM 8240-6-2**

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<b>FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR TPN-22 CONTINUATION SHEET</b>															REVIEW INITIALS	
1. LOCATION:															2. IDENT:	
3. DATE/DATES OF INSPECTION:																
<b>4. COMPUTER GENERATED PRECISION APPROACH RADAR RUN CONFIGURATIONS</b>																
RUN	RCVR IF AMP		MTI		MTI 7° WEDGE		MTI VELOCITY OFFSET		CFAR		ALS PAR MODE		C K ' S			
	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF	*C*	*P*		
1. "A" CURSOR AUTO	*		*		*		*		*		*		X	X		
2. "B" CURSOR AUTO	*		*		*		*		*		*		X			
3. "A" CURSOR MANUAL		*		*		*		*		*		*	X			
4. "B" CURSOR MANUAL		*		*		*		*		*		*	X	X		
CONTINUED  FROM  ABOVE	RUN		AZIMUTH 20° SECTOR		AZIMUTH 30° SECTOR		AZIMUTH 46° SECTOR		RWY		ANGLE		C K ' S			
	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF	AUTO ON/OFF	MAN ON/OFF					*C*	*P*		
	1. "A" CURSOR AUTO	*		*		*		*						X	X	
	2. "B" CURSOR AUTO	*		*		*		*						X		
	3. "A" CURSOR MANUAL		*		*		*		*					X		
	4. "B" CURSOR MANUAL		*		*		*		*					X	X	
<b>* FEATURES REQUIRED</b>																
5. PROGRAM DATA:																
NAME: _____ PART NUMBER: _____ VERSION: _____																
SERIAL NUMBER: _____ BUILD DATE: _____																
TRANSMITTER OUTPUT POWER: _____ RECEIVER SENSITIVITY: _____ USEABLE DISTANCE: _____																
6. REMARKS:																

**APPENDIX 7. ILS WORKSHEET, FAA FORM 8240-21**  
**AND ILS CONTINUATION WORKSHEET, FAA FORM 8240-21-1**

This form shall be used on all ILS flight inspection evaluations. It shall be retained with the corresponding recordings. The quantity of information entered on this form is not mandatory but should contain sufficient detail to explain the checks completed and the results found.

**1. FAA Form 8240-21, ILS Worksheet.**

- a. Field 1 - Location.** Complete as shown in Chapter 2, Paragraph 12.
- b. Field 2 - Identification (Ident).** Enter the 3-letter identifier of the ILS facility being inspected.
- c. Field 3 - Date.** Enter the date(s) of the checks.
- d. Field 4 - Owner.** Complete as shown in Chapter 2, Paragraph 12.
- e. Field 5 - Type Check.** Complete as shown in Chapter 2, Paragraph 12.
- f. Field 6 - Runway No.** Enter the runway designator served by the ILS.
- g. Field 7 - Facility Inspected.** Place an "X" in the appropriate block(s) to signify components have been inspected.
- h. Field 8 - Facility Status.** Enter an "X" in the appropriate block for the localizer front course (F/C), glide slope (GS), and localizer back course (B/C) if inspected.
- i. Field 9. Localizer Data.** Width: Enter commissioned course width; CAT: Enter category; B: Enter Cat I or Cat II commissioned course width + 17% or CAT III commissioned course width + 10%; S: Enter Cat I or Cat II commissioned course width - 17% or CAT III - 10%; Dual Freq: Enter Yes or No; Dual Tx: Enter Yes or No; Voice: Enter Yes or No; ESV: Enter Yes or No; Back Course: Circle Y or N; VP FC: Enter amount of vertical polarization (in micro amps) and distance at which it was measured (in NM and tenths) for the front course; BC: Enter amount of vertical polarization and distance checked for the back course.
- j. Field 10. Glide Slope Data.** Angle: Enter commissioned angle; CAT: Enter category of facility; H: Enter high angle limit (+ 10% for CAT I and II, + 4% for CAT III); L: Enter low angle limit (- 7.5% for CAT I and CAT II, - 4% for CAT III); GS Type: Enter glide slope equipment type (null reference, capture effect, etc.); Dual Tx: Enter Yes or No; ESV: Enter Yes or No; GRD Temp: Enter temperature used when conducting ILS-2 runs; OAT: Enter temperature used when conducting ILS-2 runs; Baro: Enter barometric pressure used when conducting ILS-2 runs; Alt: Enter altitude ILS-2 runs were flown.
- k. Field 11. Notes:** Enter any additional information that may be useful in interpreting the results of the flight inspection (e.g., the calibration values, distances, altimeter setting, etc.)

**I. Field 12.** Enter in chronological order the checks conducted and the results. Use enough detail that a qualified person can interpret the information and correlate the data to the flight inspection recordings.

**(1) Run Number (#).** Enter the numerical sequence of each check or test.

**(2) Facility Configuration (CFG).** Enter the number of the transmitter being inspected and the transmitter configuration code as listed below:

<u>Localizer Transmitter Configuration</u>	<u>Code</u>
Normal	N
Special Requirements	Z
Alignment Alarm Left	L
Alignment Alarm Right	R
Course Width Wide	W
Course Width Narrow	S
RF Power Alarm	P
Localizer, CRS Wide, CLR Wide	B
Localizer, CRS NAR, CLR Wide	C
<u>Glide Slope Transmitter Configuration</u>	<u>Code</u>
Normal	N
Wide	W
Wide and CLR Demodulation	B
Narrow	S
Dephase Advance	A
Dephase Retard	R
Attenuate Middle Antenna	M
Attenuate Upper Antenna	U
Low Angle Alarm	L
High Angle Alarm	H
RF Power Alarm	P
Special Requirements	Z
Transverse Structure (FAF ALT)	T



<u>Waveguide Glide Slope Configuration</u>	<u>Code</u>
Main Sideband Advance	MA
Main Sideband Retard	MR
Upper Auxiliary Attenuate	UZ
Upper Auxiliary Advance	UA
Upper Auxiliary Retard	UR
Lower Auxiliary Attenuate	LZ
Upper and Lower Waveguide Advance	ULA
Upper and Lower Waveguide Retard	ULR
Main Waveguide Feed Advance	FA
Main Waveguide Feed Retard	FR
Lower Main Feed Attenuate	LMZ
Upper Main Feed Attenuate	UMZ

**(3) The remaining columns** are intended for use as designated. They may be altered if necessary.

**(4) Remarks/Other Data.** When manual mode is used to perform an inspection, enter the word "Non-AFIS" on the line preceding manual inspection entries.

Suggested abbreviations to be used when completing this form:

RWY	- Runway
FREQ	- Frequency
LOC TYPE	- Localizer Type
CW	- Commissioned or measured Course Width
CAT	- Category of ILS
GS TYPE	- CE/NR/SBR/EF/WG
CE	- Capture Effect
NR	- Null Reference
SBR	- Sideband Reference
EF	- Endfire
WG	- Waveguide
ANGLE	- Commissioned Glidepath
GND TEMP	- Ground Temperature
OAT	- Outside Air Temperature
BARO	- Barometric Altimeter Setting
ALTITUDE	- Altitude to Fly on ILS-2
PW	- Path Width
PA	- Path Angle
ALN	- Alignment
190uA	- 190 Microamp Angle
Mod	- Modulation
90Hz Sym	- Symmetry of 90 Hertz side of width
SBP	- Structure Below Path

Z1	- Localizer & Glide Slope Structure in Zone 1
Z2	- Localizer & Glide Slope Structure in Zone 2
Z3	- Localizer & Glide Slope Structure in Zone 3
Z4	- Localizer Structure in Zone 4
Z5	- Localizer Structure in Zone 5
POL	- Polarization
150 CLR	- Minimum localizer clearance on 150 Hz side of localizer
90 CLR	- Minimum localizer clearance on 90 Hz side of localizer

**2. FAA Form 8240-21-1, ILS Continuation Worksheet.**

**a. Field 1. Notes.** Enter any additional information that may be useful in interpreting the results of the flight inspection.

**b. Field 2.** Complete as shown in FAA Form 8240-21, Paragraph 1l.

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[illegible]

IDENT:

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[illegible]

FAA FORM 8240 - 21 - 1 (11/96) (FORMFLOW)

**APPENDIX 8. FLIGHT INSPECTION REPORT--INSTRUMENT  
LANDING SYSTEM, FAA FORM 8240-7**

FAA Forms 8240-7, Instrument Landing System; 8240-16, Instrument Landing System Supplement Sheet (see appendix 9); and 8240-18, Localizer Clearance Plot (see appendix 10) are designed to be used together to report all the components or conditions of an instrument landing system. This appendix provides guidelines for completing FAA Form 8240-7.

NOTE: Commissionings of visual aids, NDB's, and after accident reports on NDB's shall be reported on FAA Form 8240-19.

1. **Field 1 - Location.** Complete as shown in chapter 2, paragraph 12.
2. **Field 2 - Identification (Ident).** Complete as shown in chapter 2, paragraph 12.
3. **Fields 3--6.** Complete as shown in chapter 2, paragraph 12.
4. **Field 7 - Runway No.** Enter runway designator served by the ILS.
5. **Field 8 - Facility Inspected.** Place an "X" in the appropriate block(s) to signify components have been inspected. DME refers to any source of DME that may be required for the ILS approach (see Field 11).
6. **Field 9 - Localizer.** If LDA or SDF is marked in Field 8, draw a line through the word "localizer" and insert the same three letters as in Field 8. This field shall be left blank when that component of the ILS is not inspected or reported on the same flight inspection form (i.e., do not enter "COM'D WIDTH" or "CATEGORY" for the localizer if the reported information is glide slope only, or vice versa). Enter the data for both the front and back courses in the appropriate transmitter (TX) column. If an offset facility is checked, enter a statement to this effect in Field 13.
  - a. **Commissioned (Com'd) Width.** Enter the tailored or standard course sector width.
  - b. **Category.** Enter the lowest minima performance category of the facility (I, II, or III - Do not include A, B, or C on the report).
  - c. **TX1/TX2 OT Column.** Under the appropriate transmitter number, enter an "X" for any out-of-tolerance condition found and not corrected during the inspection; enter a "C" for any out-of-tolerance condition found and corrected during the inspection.
  - d. **TX1/TX2 Initial Column.** Under the appropriate transmitter number, enter the "as found" operating condition in this column, if this condition was changed or altered during the inspection.
  - e. **TX1/TX2 Final Column.** Under the appropriate transmitter number, enter the operating condition at the completion of the inspection. Use this column to report the results of after accident checks.
  - f. **Course Width.** Enter the measured, normal course sector width for each transmitter checked.

**g. Modulation.** Enter the "on course" modulation level in percent for each transmitter checked.

**h. Clearance 150.** Enter the minimum value in microamperes and the degrees from the course on the 150 Hz side (front or back) for each transmitter checked. An entry of 180/20 means the minimum clearance was 180 uA at 20 degrees from the course. If clearance values do not meet tolerances in sectors 2 or 3, but are exempted because of duration, see paragraph 10 of this appendix.

NOTE: Do not report the algebraic sign from the AFIS clearance readout.

**i. Clearance 90.** Enter the results found on the 90 Hz side as shown in subparagraph 6h.

**j. Course Structure - General Information.** When a facility is restricted from a point in a zone, enter the maximum course displacement in the unrestricted portion of the zone in Field 9. When structure is reported within a restricted area, report the findings in Field 13. When reporting a structure exempted because of duration by Order 8200.1A, paragraph 217.41, see paragraph 10 of this appendix.

**k. Course Structure - Z1, Z2, Z3, Z4, Z5.** Report the maximum course displacement in microamperes due to roughness, scalloping, or bends for each transmitter checked. Report the course displacement for each zone and the distance from the threshold or missed approach point (e.g., 5/0.7 indicates the displacement was 5 microamperes at 0.7 nautical miles). When necessary to more accurately locate a structure value in a particular zone, report mileage to the nearest hundredth.

(1) When zones have tolerances which have linear rates of change, report the structure closest to the tolerance limit.

(2) Report the out-of-tolerance furthest from the threshold or missed approach point. If there is an additional out-of-tolerance structure closer to the threshold and it is reported, report in Field 13.

(3) Report localizer only approach final segment maximum structure in Field 13. Report the structure closest to the tolerance limit (e.g., localizer only structure 14/.36 miles).

**l. Vertical Polarization** - Enter the amount of course displacement in microamperes, caused by the vertical polarization and the distance the check was conducted (e.g., 2/8.0).

**m. Symmetry.** Enter the percent of symmetry of the 90 Hz side.

**n. Alignment.** Enter the course displacement in microamperes, left or right of the designed course (e.g., 3R is three microamperes right of the course, "CL" for no alignment error). For offset facilities, reference the alignment to the designed azimuth alignment. Facilities evaluated without actual course alignment references shall be reported either satisfactory (S) or unsatisfactory (U).

**o. Voice.** Enter "S" if satisfactory or "U" if unsatisfactory.

**p. Identification.** Enter "S" if satisfactory or "U" if unsatisfactory.

**q. Usable Distance.** If a RF power monitor check is conducted to check the service volume, enter the maximum distance in miles from the antenna where the check was satisfactory.

**r. Monitor.** Leave blank.

**(1) Course Width (Narrow).** Enter the course sector width when narrowed to the monitor limit setting.

**(2) Course Width (Wide).** Enter the course sector width when increased to the monitor limit setting.

**(3) Clearance 150.** Enter as shown in subparagraph 6h, the minimum clearance measured on the 150 Hz side, when the facility is in the minimum clearance, monitor limit setting.

**(4) Clearance 90.** Enter the results found on the 90 Hz side as shown in subparagraph 6r(3).

**(5) Alignment 150.** Enter the course displacement in microamperes, with the course alignment shifted to the right (150 Hz side) monitor limit setting. Reference the displacement to the designed azimuth alignment or modulation balance reference.

**(6) Alignment 90.** Enter the course displacement in microamperes, with the course alignment shifted to the left (90 Hz side) monitor limit setting. Reference the displacement to the designed azimuth alignment or modulation balance reference.

**7. Field 10 - Glide Slope.** Columns are provided for each transmitter and are labeled similar to the localizer entries. If the glide slope transmitter cannot be determined, indicate in Field 13. This field shall be left blank when that component of the ILS is not inspected or reported on the same flight inspection form.

**a. Commissioned (Com'd) Angle.** Enter the commissioned angle.

**b. Category.** Enter the lowest minima performance category of the glide slope (I, II, or III - Do not include A, B, or C on the report.)

**c. OT Column, Initial Column, Final column.** Complete these columns using the guidelines in paragraphs 6c, d, and e.

**d. Angle.** Enter the measured, actual glidepath angle. If the reported angle is not the actual angle, explain in Field 13.

**e. Modulation.** Enter the modulation level in percent.

**f. Width.** Enter the width of the normal glidepath envelope, as measured on a level run.

**g. Clearance Below Path.** Clearance below path measurements made while the glidepath is in a normal configuration will be reported in these blocks. Enter "S" if satisfactory or "U" if unsatisfactory.

**h. Structure Below Path.** Enter the normal level run angle where 190 microamperes of fly-up signal occurs.

**i. Path Structure - General Information.** If a facility is restricted from a point in a zone, enter the maximum on-path displacement in the unrestricted portion of the zone in Field 10. When structure is reported within a restricted area, report the findings in Field 13. When reporting a structure exempted because of duration by Order 8200.1A, paragraph 217.41, see paragraph 10 of this appendix.

**j. Path Structure Z1, Z2, Z3.** Report the maximum on-path displacement in microamperes due to roughness, scalloping, or bends for each transmitter checked. Report the path displacement for each zone and the distance from the threshold (e.g., 5/0.7 indicates the displacement was 5 microamperes at 0.7 nautical miles). If it is necessary to more accurately identify structure in a particular zone, report mileage to the nearest hundredth.

**(1)** When zones have tolerances that have linear rates of change, report the structure closest to the tolerance limit.

**(2)** Report the out-of-tolerance furthest from the threshold. If there is additional out-of-tolerance structure closer to the threshold and it is reported, report in Field 13.

**k. Usable Distance.** If a RF power monitor check is conducted to check service volume, enter the maximum distance in miles from the antenna where the check was satisfactory.

**l. Symmetry.** Enter the percent of symmetry of the 90 Hz side.

**m. Monitor.** Leave blank.

**8. Field 11 - General.** This field is used to document the condition of facilities or visual aids which are part of or used as a component of the ILS approach and are checked concurrently.

**a. 75 MHz Markers, Compass Locators, DME.** Enter "X" in the appropriate column (if inspected).

**(1) Satisfactory means** that all markers in the system being inspected are in tolerance. If any markers are found out-of-tolerance, and the condition not corrected, indicate markers as "unsatisfactory" and explain in Field 13.

**(2) When the DME for an ILS approach** is provided by a VOR/DME, VORTAC, or TACAN, enter in parenthesis following the word "DME" the identifier and the type facility providing the DME (e.g., DME (BLV TAC)).



**(3) The "compass locators" block** is used to report the condition of any nondirectional beacon used as a part of an ILS system. If the 3-letter identifier of the NDB is different from the ILS, enter the identifier in parenthesis after the words "compass locators".

**b. Lighting Systems.** If all lighting features required to support the ILS are satisfactory, mark accordingly. Other conditions are unsatisfactory.

**9. Field 12 - Facility Status.** Enter an "X" in the appropriate block for the localizer front course (F/C), glide slope (G/S), and localizer back course (B/C) if inspected. Complete NOTAM's block as directed in chapter 3, paragraph 21.

**10. Field 13 - Remarks.** If FAA Form 8240-16, Flight Inspection Report--Instrument Landing System Supplement Sheet, is used as part of the ILS report, all remarks may be reported on the supplemental sheet.

**a. Other Structure Results.** Where structure does not meet tolerances but is exempted by Order 8200.1A, paragraph 217.41, place an asterisk in the "OT" column next to the microampere value and explain in Field 13 (e.g., \* structure "SAT" per 217.41).

**b. Exempted Clearance.** Where clearance values do not meet tolerances in sectors 2 and 3 but are exempted by the provisions of Order 8200.1A, paragraph 217.43, place an asterisk in the "OT" column next to the clearance value and explain in Field 13 (e.g., \* clearance "SAT" per 217.43).

**c. 75 MHz Marker Beacon(s).** See chapter 3, paragraph 21.

**d. Order 8240.47 Use.** When 8240.47, Determination of ILS Glidepath Angle, Reference Datum Heights, and Ground Point of Intercept, is used on a glide slope, enter in Field 13 (e.g., Commissioned in accordance with 8240.47. RDH = 50 feet; ARDH = 51 feet; GPI = 952.6 feet; Final Aiming Point Elevation = 1,250 feet.) Include this information in the Remarks Field of the Aircraft Management Information System (AMIS).

**e. Glide Slope Coordinate Standardization (AFIS/AMIS).** Document the glide slope aiming point coordinates (i.e., antenna or centerline abeam and offsets) used when applying FAA Order 8240.47 or anytime the glide slope aiming point coordinates are changed thereafter. Include this information in the Remarks Field of the Aircraft Management Information System (AMIS)(e.g., glide slope coordinate = antenna, offset = 450L).

**APPENDIX 8. FLIGHT INSPECTION REPORT--INSTRUMENT LANDING SYSTEM**  
**FIGURE 1. FAA FORM 8240-7**

<b>FLIGHT INSPECTION REPORT--INSTRUMENT LANDING SYSTEM</b>												REVIEW INITIALS	
1. LOCATION:												2. IDENT:	
3. COMMON SYSTEM:				4. DATE/DATES OF INSPECTION:						5. OWNER:			
6. TYPE OF INSPECTION				SITE EVALUATION		PERIODIC		SPECIAL					
				COMMISSIONING		SURVEILLANCE		INCOMPLETE					
7. RUNWAY NO:		8. FACILITY INSPECTED		LOCALIZER		SDF		GLIDE SLOPE		75 mHz MARKERS			
				LDA		DME		LIGHTING SYSTEM		COMPASS LOCATORS			
<b>9. LOCALIZER</b>													
FRONT COURSE						COMD WIDTH:		BACK COURSE					
TX 1			TX 2					TX 1			TX 2		
O T	INITIAL	FINAL	O T	INITIAL	FINAL	CATEGORY:		O T	INITIAL	FINAL	O T	INITIAL	FINAL
						COURSE WIDTH							
						MODULATION							
						CLEARANCE 150							
						CLEARANCE 90							
						COURSE STRUCTURE-Z 1							
						COURSE STRUCTURE-Z 2							
						COURSE STRUCTURE-Z 3							
						COURSE STRUCTURE-Z 4							
						COURSE STRUCTURE-Z 5							
						VERTICAL POLARIZATION							
						SYMMETRY							
						ALIGNMENT							
						VOICE							
						IDENTIFICATION							
						USABLE DISTANCE							
						MONITOR							
						COURSE WIDTH <i>(Narrow)</i>							
						COURSE WIDTH <i>(Wide)</i>							
						CLEARANCE 150							
						CLEARANCE 90							
						ALIGNMENT 150							
						ALIGNMENT 90							
<b>10. GLIDE SLOPE</b>												<b>11. GENERAL</b>	
TX 1			TX 2			COMD ANGLE:							
O T	INITIAL	FINAL	O T	INITIAL	FINAL							CATEGORY:	
						ANGLE		COMPASS LOCATORS					
						MODULATION		D M E					
						WIDTH		LIGHTING SYSTEMS					
						CLEARANCE BELOW PATH		<b>12. FACILITY STATUS</b>					
						STRUCTURE BELOW PATH				F / C	G / S	B / C	
						PATH STRUCTURE-Z 1		UNRESTRICTED					
						PATH STRUCTURE-Z 2		RESTRICTED					
						PATH STRUCTURE-Z 3		UNUSABLE					
						USABLE DISTANCE		NOTAM's:					
						SYMMETRY							
						MONITOR							
13. REMARKS:													
REGION:		FLIGHT INSPECTOR'S SIGNATURE:				TECHNICIAN'S SIGNATURE:				AIRCRAFT NO :			
FIO:													

FAA FORM 8240 - 7 (5/96) (FORMFLOW)

**APPENDIX 9. FLIGHT INSPECTION REPORT--INSTRUMENT LANDING SYSTEM**  
**SUPPLEMENTAL SHEET, FAA FORM 8240-16**

This form is intended for use as a supplement to FAA Form 8240-7, Flight Inspection Report-Instrument Landing System, and will be used only as an attachment to a properly completed FAA Form 8240-7. When only checking a localizer-type facility, phasing data may be reported in field 13 of FAA Form 8240-7 in lieu of completing this form.

**a. Field 1 - Location.** Entry identical to field 1 of the ILS report, FAA Form 8240-7.

**b. Field 2 - Identification (Ident).** Entry identical to field 2 of the ILS report, FAA Form 8240-7.

**c. Field 3 - Date/Dates of Inspection.** Entry identical to field 4 of the ILS report, FAA Form 8240-7.

**d. Field 4 - Glide Slope.** Enter the applicable path angle, path width, and structure below path for each condition outlined below.

NOTE: If the actual path angle was determined during the inspection, apply the correction factor (per Order 8200.1A, section 217) to all reported on-path, level run angles.

**(1) Field 4a - Glide Slope Type.** Enter the type of glide slope being reported. Use the suggested abbreviations shown in appendix 7, paragraph g(4).

**(2) Field 4b - Dephase.**

**(a) Advance TX1/TX2.** Enter the measured values for each listed parameter and transmitter.

**(b) Retard TX1/TX2.** Enter the measured values for each listed parameter and transmitter.

**(3) Field 4c - Path Angle Lowered to Limit.** Enter the measured values for each listed parameter and transmitter when the path angle has been lowered to the monitor limit setting.

**(4) Field 4d - Path Angle Raised to Limit.** Enter the measured values for each listed parameter and transmitter when the path angle has been raised to the monitor limit setting.

**(5) Field 4e - Path Width Narrowed to Limit.** Enter the measured values for each listed parameter and transmitter when the path width has been narrowed to the monitor limit setting.

**(6) Field 4f - Path Width Widened to Limit.** Enter the measured values for each listed parameter and transmitter when the path width has been widened to the monitor limit setting; for capture effect facilities, leave this field blank and complete field 4g.

**(7) Field 4g - Clearance TX Modulation Decreased to Limit (Primary TX Wide Limit).**

Enter the measured values for each listed parameter and transmitter when the clearance TX modulation level has been decreased to the monitor limit setting while the path width of the primary TX is in the monitor wide limit setting.

**(8) Field 4h - Attenuate Middle Antenna to Limit TX1/TX2.** Enter the measured values for each listed parameter and transmitter when the middle antenna signal is attenuated to the monitor limit setting.

**(9) Field 4i - Attenuate Upper Antenna to the Limit TX1/TX2.** Enter the measured values for each listed parameter and transmitter when the upper antenna signal is attenuated to the monitor limit setting.

**(10) Field 4j - Transverse Structure, CRS (course) Sector, Edge Sector.** Complete only for endfire glide slopes. Report the maximum glide slope crosspointer deviations for the localizer course sector and the localizer edge sector. Example: If the maximum glide slope crosspointer deviation for the localizer course sector is 25  $\mu$ A, enter 25 in the block labeled Crs Sector/FAF ALT.

**(11) Field 4k - Modulation Balance TX1/TX2.** Enter the crosspointer deflection in microamps and the predominate 90 Hz or 150 Hz modulation for each transmitter. Enter zero if obtained.

**(12) Field 4l - Phasing TX1/TX2.** Enter the same as subparagraph d(11), modulation balance.

**(13) Field 4m - Front Course Area Where Phasing Was Conducted.** In the "NM" block, enter the segment distance in nautical miles from the glide slope antenna where phasing repeatability existed (e.g., 4/1). In the "MSL" block, enter the altitude flown above mean sea level.

**(14) Field 4n - Clearance Below Path TX1/TX2.** Enter "S" if all clearances below path runs are satisfactory. If any checks are unsatisfactory, place an asterisk in this field and explain in field 5.

**e. Field 5 - Remarks.** Use field 5 to clarify any reported conditions in other fields. When reporting localizer phasing (e.g. enter the start/stop distance from the localizer antenna, the course sector side (90 Hz or 150 Hz), the offset from centerline (in degrees), and the MSL altitude flown).

**APPENDIX 9. FLIGHT INSPECTION REPORT--INSTRUMENT LANDING  
SYSTEM SUPPLEMENTAL SHEET  
FIGURE 1. FAA FORM 8240-16**

PAGE OF PAGES

<b>FLIGHT INSPECTION REPORT--INSTRUMENT LANDING SYSTEM SUPPLEMENTAL SHEET</b>								REVIEW INITIALS	
1. LOCATION:								2. IDENT:	
3. DATE / DATES OF INSPECTION:									
4. GLIDE SLOPE									
4a. GLIDE SLOPE TYPE:				PATH ANGLE		PATH WIDTH		STRUCTURE BELOW PATH	
				TX 1	TX 2	TX 1	TX 2	TX 1	TX 2
4b. DEPHASE	ADVANCE	TX 1	TX 2						
	RETARD	TX 1	TX 2						
4c. PATH ANGLE LOWERED TO LIMIT									
4d. PATH ANGLE RAISED TO LIMIT									
4e. PATH WIDTH NARROWED TO LIMIT									
4f. PATH WIDTH WIDENED TO LIMIT									
4g. CLEARANCE TX MODULATION DECREASED TO LIMIT - (PRIMARY TX WIDE LIMIT)									
4h. ATTENUATE MIDDLE ANT TO LIMIT		TX 1	TX 2						
4i. ATTENUATE UPPER ANT TO LIMIT		TX 1	TX 2						
4j. TRANSVERSE STRUCTURE		CRS SECTOR		FAF ALT:					
		EDGE SECTOR		FAF ALT:					
4k. MODULATION BALANCE				TX1		TX2			
4l. PHASING				TX1		TX2			
4m. FRONT COURSE AREA WHERE PHASING WAS CONDUCTED						NM		MSL	
4n. CLEARANCE BELOW PATH				TX1		TX2			
5. REMARKS									

**APPENDIX 10. FLIGHT INSPECTION REPORT--LOCALIZER CLEARANCE PLOT,**  
**FAA FORM 8240-18 AND FAA FORM 8240-18-1**

Use FAA Form 8240-18 or 8240-18-1, as appropriate, for localizer commissioning/reconfiguration checks. Plot the localizer clearances at the lowest coverage altitude (LCA) with the facility course width in normal and wide (or lowest clearance condition) configuration. Plot the front and back courses (if generated) for each transmitter. Plot the high angle clearance orbit (one transmitter only). When a need exists to check course width and clearances other than LCA, record the normal width and plot the normal clearances found at the higher altitude (see paragraph k).

- a. **Fields 1--3.** Use the same information as in fields 1, 2, and 4 of FAA Form 8240-7.
- b. **Field 4 - Antenna (ANT) Type.** Refer to Appendix 18, remarks section, ILS equipment type and antenna type codes, for the designator.
- c. **Field 5 - Site Elevation (ELEV).** Enter the elevation of the localizer antenna site.
- d. **Field 6 - Transmitter (TX).** Identify the transmitter reported for each clearance plot (e.g., 1 or 2).
- e. **Field 7 - Configuration (CFG).** Enter the configuration code that indicates the transmitter condition for each clearance evaluation (see appendix 7, paragraph g(2) for the codes).
- f. **Field 8 - Altitude (ALT).** Enter the altitude used, divided by 100, during each evaluation that is plotted (e.g., 2,500' MSL would be 25). Indicate altitude changes in field 13.
- g. **Field 9 - Radius.** Enter the radius of each plotted orbit or arc in nautical miles.
- h. **Field 10 - Width, Front Course (FC).** Enter the front course width for each clearance evaluation that is plotted.
- i. **Field 11 - Width, Back Course (BC).** Enter the back course width for each clearance evaluation that is plotted.
- j. **Field 12.** Use these fields when plotting the localizer crosspointer values obtained during the various clearance orbits or arcs. When plotting the information, use the plotting codes shown in the "Code:" block. In sector 1, plot the clearances recorded for each degree of azimuth. In sectors 2 and 3 (if required), plot the clearances recorded at every 5 degrees of azimuth. Plot the clearance for each degree of azimuth in the 5-degree segment containing the lowest clearance point each side of the course. Whenever the clearance values drop below the published tolerances, plot the clearance recorded for each degree of azimuth to the next whole 5-degree point within tolerance (e.g., if at 16 degrees/90 Hz, the clearance drops below tolerance and remains there until 18 degrees/90 Hz, plot the clearance at each degree from 16--20 degrees/90 Hz.)

NOTE: See Order 8200.1A, section 301, for a definition of the various clearance sectors. Do not apply the 3 degrees of arc exception discussed in Order 8200.1A, paragraph 217.43, when plotting these clearances.

**k. Field 13 - Remarks.** Enter any remarks needed to clarify the information contained in fields 1--12 (e.g., localizer course width and clearance comparability verified from LCA of 1,200 feet MSL up to 4,555 feet MSL or localizer and clearance checks must be conducted at LCA of 1,200 feet MSL).

# APPENDIX 10. FLIGHT INSPECTION REPORT--LOCALIZER CLEARANCE PLOT FIGURE 1. FAA FORM 8240-18

PAGE OF PAGES

FLIGHT INSPECTION REPORT--LOCALIZER CLEARANCE PLOT							
1. LOCATION:						2. IDENT:	
3. DATE/DATES OF INSPECTION:				4. ANT TYPE:		5. SITE ELEV:	
6. TX:	7. CFG:	8. ALT:	9. RADIUS:	10. WIDTH FC:	11. WIDTH BC:	CODE: FC _____ BC _____	
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 10px;">MICROAMPERES</div> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <span>90°</span><span>70°</span><span>50°</span><span>40°</span><span>30°</span><span>20°</span><span>10°</span><span>0°</span><span>10°</span><span>20°</span><span>30°</span><span>40°</span><span>50°</span><span>70°</span><span>90°</span> </div> </div> </div>							
6. TX:	7. CFG:	8. ALT:	9. RADIUS:	10. WIDTH FC:	11. WIDTH BC:	CODE: FC _____ BC _____	
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 10px;">MICROAMPERES</div> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <span>90°</span><span>70°</span><span>50°</span><span>40°</span><span>30°</span><span>20°</span><span>10°</span><span>0°</span><span>10°</span><span>20°</span><span>30°</span><span>40°</span><span>50°</span><span>70°</span><span>90°</span> </div> </div> </div>							
6. TX:	7. CFG:	8. ALT:	9. RADIUS:	10. WIDTH FC:	11. WIDTH BC:	CODE: FC _____ BC _____	
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 10px;">MICROAMPERES</div> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <span>90°</span><span>70°</span><span>50°</span><span>40°</span><span>30°</span><span>20°</span><span>10°</span><span>0°</span><span>10°</span><span>20°</span><span>30°</span><span>40°</span><span>50°</span><span>70°</span><span>90°</span> </div> </div> </div>							
13. REMARKS:							
REGION:		FLIGHT INSPECTOR'S SIGNATURE:		TECHNICIAN'S SIGNATURE:		AIRCRAFT NO :	
FIO:		N / A					

FAA FORM 8240 - 18 (5/96) (FORMFLOW)



APPENDIX 10. FLIGHT INSPECTION REPORT-- ABBREVIATED LOCALIZER CLEARANCE PLOT  
FIGURE 2. FAA FORM 8240-18-1

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FLIGHT INSPECTION REPORT-- ABBREVIATED LOCALIZER CLEARANCE PLOT							
1. LOCATION:						2. IDENT:	
3. DATE/DATES OF INSPECTION:				4. ANT TYPE:		5. SITE ELEV:	
6. TX:	7. CFG:	8. ALT:	9. RADIUS:	10. WIDTH FC:	11. WIDTH BC:	CODE: FC _____ BC - - - - -	
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 10px;">MICROAMPERES</div> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <span>35°</span><span>30°</span><span>25°</span><span>20°</span><span>15°</span><span>10°</span><span>5°</span><span>0°</span><span>5°</span><span>10°</span><span>15°</span><span>20°</span><span>25°</span><span>30°</span><span>35°</span> </div> <div style="position: relative; height: 150px;"> <div style="position: absolute; top: 0; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 10%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 20%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 30%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 40%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 50%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 60%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 70%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 80%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 90%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> <div style="position: absolute; top: 100%; left: 0; right: 0; border-bottom: 1px solid black; height: 10px;"></div> </div> </div> </div>							
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13. REMARKS:							
REGION:		FLIGHT INSPECTOR'S SIGNATURE:		TECHNICIAN'S SIGNATURE:		AIRCRAFT NO :	
FIO:		N / A					

FAA FORM 8240 - 18 - 1 (6/96) (FORMFLOW)

**APPENDIX 11. FLIGHT INSPECTION REPORT - ILS/MLS**  
**MAINTENANCE ALERT, FAA FORM 8240-7-1**

This form is intended to be used to report ILS/MLS maintenance alert results following a normal periodic check without monitors when a measured flight inspection parameter exceeds 60 percent of the flight inspection tolerance.

- a. Field 1 - Location.** Complete as shown in chapter 2, paragraph 12.
- b. Field 2 - Identification (Ident).** Complete as shown in chapter 2, paragraph 12.
- c. Field 3 - Date/Dates of Inspection.** Complete as shown in chapter 2, paragraph 12.
- d. Field 4 - Parameter.** Enter a description of the parameter under evaluation which exceeded defined tolerance criteria. Enter number of transmitter radiating, if known. Example: Glide Slope Path Width, TX 1.
  - (1) Exceeds 60 percent of Flight Inspection (FI) tolerance.** Enter the measured value of the parameter which exceeded 60 percent of FI tolerances. (Example for determining if parameter exceeds 60 percent of FI tolerance: Glide slope optimum path width = .70 degrees. Maximum path width = .90 degrees. so:  $.90 - .70 = .20$  degrees, which equals the allowable deviation from optimum. Multiply .60 times .20 and add resultant to .70 for the value (i.e.,  $.60 \times .20 = .12 + .70 = .82$ ). Any value exceeding .82 degrees would require an ILS maintenance alert be issued.
- e. Field 5. Enter the name of the person at the central scheduling and dispatch facility** who received alert results from the flight crew.
- f. Field 6. Remarks.** Use Field 6 to clarify any reported conditions in other fields. When the central scheduling and dispatch facility forwards the ILS/MLS maintenance alert results to the regional maintenance engineering branch by telephone, enter the name of the person contacted and date, if different from date of inspection.

[illegible]

**APPENDIX 12. FLIGHT INSPECTION REPORT--SURVEILLANCE RADAR,**  
**FAA FORM 8240-8;**  
**AND**  
**SURVEILLANCE RADAR COVERAGE PLOT,**  
**FAA FORM 8240-9**

**1. FAA Form 8240-8, Flight Inspection Report--Surveillance Radar,** is designed as a one-page report for surveillance radar inspections. However, when reporting horizontal and vertical coverage characteristics, FAA Form 8240-9, Surveillance Radar Coverage Plot, is required. The surveillance radar coverage plot shall always be a supplement of a surveillance radar report.

**a. Field 1 - Location.** Enter the city or military installation, state or country, where the radar antenna is located, (e.g. Tinker AFB ARPT, Oklahoma City, OK). If there are multiple radar antenna inputs and more space is required, place an asterisk in this block and explain in field 14.

**b. Field 2 - Identifier (IDENT).** Enter the location identifier published in Order 7350.5 for the location shown in field 1, except for ARSR facilities. An ARSR facility will use the identifier of the controlling ARTCC, with an alpha subcode, of the radar location in field 1 (e.g., the Fort Worth, Texas, ARTCC location identifier is ZFW and the alpha subcode is "A", therefore use ZFWA).

NOTE 1: Where more than one ASR is installed at the same location, each will be identified by the facility identifier plus an alpha subcode (e.g., TIKa, TIKb).

NOTE 2: Where more than one ARSR serves one ARTCC, each will be identified by the ARTCC identifier plus an alpha subcode (e.g., ZFWA, ZFWB).

**c. Fields 4--6.** Complete as shown in chapter 2, paragraph 12.

**d. Field 7 - Facility Inspected.**

**(1) ASR, ARSR, SECRA.** Enter an "X" in the appropriate block to indicate the type of facilities inspected.

**(2) Ground Equipment Type.** Insert the designation of the ground equipment type (e.g., FPN-47 for primary and ATCBI-3 for secondary radar will be entered as FPN-47/ATCBI-3). ASR/9 or ASR/8 radar facilities installed with Mode S capability will be designated as equipment type ASR/9/Mode S or ASR/8/Mode S. If the radar facility is Mode S capable but operating in Interim Beacon Interrogator (IBI) Mode, report as follows: ASR/9 or ASR/8/Mode S (IBI).

**e. Field 8 - Scope Location.** Enter the location of the controller scope (e.g., Washington, D.C. ARTCC; Scott AFB, IL. RAPCON).

**f. Field 9 - Fix Coverage.**

- (1) **Fix Name.** Identify the radar fix inspected.
- (2) **Airway.** Identify the airway associated with the fix. (e.g., V47, J123W).
- (3) **Altitude.** Enter the lowest altitude checked at which coverage is satisfactory. Enter the altitude divided by 100 (e.g., 2500 feet would be 25).
- (4) **Channel.** Enter the radar channel evaluated (e.g., A or B).
- (5) **Satisfactory/Unsatisfactory (SAT/UNSAT).** Enter an "X" in the appropriate block, to indicate the status of the fix.

**g. Field 10 - Fixed (Fix) Target Identification (Ident)/Orientation Checkpoint.**

- (1) **Check Point.** A numerical listing is assigned to each checkpoint (e.g. #1, #2, #3, etc.)
- (2) **Channel.** Enter the radar channel used during the checks (e.g., A or B).
- (3) **Azimuth (Radar/Chart).** Enter the azimuth bearing from the radar antenna, as determined at the radar scope, and the actual azimuth bearing determined from a chart or AFIS.
- (4) **Distance (Radar/Chart).** Enter the distance from the radar antenna as determined at the radar scope and the actual distance, determined from a chart or AFIS.

**h. Field 11 - Route Coverage.**

- (1) **Route.** Show the designation of the route checked (e.g., J123W, V12).
- (2) **From/To.** Indicate the segment, in nautical miles, of the route checked or the name of the fix being checked.
- (3) **Channel (CHAN).** Enter the radar channel evaluated (e.g., A or B).
- (4) **Altitude (ALT).** Enter the lowest satisfactory coverage altitude checked. Enter the altitude divided by 100 (e.g. 2,500 ft would be 25).
- (5) **Polarization (POLAR).** Enter the type of polarization used during the check.
- (6) **Moving Target Indicator (MTI).** Enter "Y" (Yes) or "N" (No) to indicate if the MTI feature was in use.
- (7) **Secondary Radar (SECRA).** Enter "Y" (Yes) or "N" (No) to show if the SECRA was operating satisfactorily during the inspection of the route.

**(8) Satisfactory (SAT)/Unsatisfactory (UNSAT).** Enter an "X" in the appropriate block to indicate the status of the route.

**i. Field 12 - Surveillance Approaches.**

**(1) Airport.** Enter the name and state of the airport where each approach terminates.

**(2) Runway (Rwy).** Indicate the runway numbers where the approaches terminate.

**(3) Approach Condition.** List any conditions that affected the approaches or radar operation (e.g., adverse weather).

**(4) Position (POS) - Map.** Indicate the position of the aircraft (in feet) relative to the runway C/L extended, at the procedural missed-approach point. An aircraft 300 feet left of the runway C/L, at a missed approach point that is 0.5 NM from the runway threshold, would be reported as: 300 L / 0.5 NM.

**(5) Polarization (POLAR).** Indicate the type of polarization used during the approach.

**(6) Moving Target Indicator (MTI).** Enter "Y" (Yes) or "N" (No) to indicate if the MTI feature was used.

**(7) Channel (CHAN).** Enter the radar channel evaluated (e.g., A or B).

**(8) Satisfactory (SAT)/Unsatisfactory (UNSAT).** Enter an "X" in the appropriate block to indicate the status of each approach.

**j. Field 13 - Standby Power.** Enter an "X" in the appropriate block. If not checked, leave blank."

**k. Field 14 - Remarks.** Complete as shown in chapter 3. When appropriate, list:

**(1)** When a major modification has been performed.

**(2)** When MTI is required for the ASR approach. (This requirement does not constitute a facility restriction.)

**(3)** When an air traffic control radar beacon system (ATCRBS) power optimization check is performed, report the interrogator power values. If dual equipment is installed, report the value for each transponder.

**(4)** When equipment changes/modifications are made and the inspection is used to reestablish the coverage, for example, "This inspection reestablishes the coverage and performance of the (ASR/ARSR/ACTRBS). The results found on this inspection will be the basis for subsequent performance." The remark may be expanded to be more specific.

**2. FAA Form 8240-9, Surveillance Radar Coverage Plot.** Check either ASR or ARSR, as appropriate.

NOTE: The flight inspector shall complete this form only if requested by ground personnel.

**a. Field 1 - Location.** Enter as shown in paragraph 1 of this appendix.

**b. Field 2 - Date/Dates of Inspection.** Entry identical to the entry in field 4 of the surveillance radar report.

**c. Field 3 - Ground Equipment Type.** Enter the same as the ground equipment type portion of field 7 of the surveillance radar report.

**d. Field 4 - Aircraft Type.** Specify the type of aircraft used for the inspection (e.g., NA-265, BE-300, C-140).

**e. Field 5 - Antenna Tilt.** Enter an "X" in the appropriate block. Variable (VAR) tilt antenna means the antenna tilt can be controlled from a remote position.

**f. Field 6 - Optimum Angle.** Show the mechanical antenna tilt angle which has been selected as the optimum for the installation being inspected.

**g. Field 7 - Vertical Coverage.** Plot the inner and outer fringe vertical coverage limits of the radar by placing a dot at each altitude and distance where the target returns become unusable. Connect the dots around the inner and outer coverage areas with a solid line. Show any holes noted within this vertical coverage area by placing dots at the extremities of the holes and enter the word "hole" between the dots. Plot vertical coverage results of secondary radar using dash lines to connect points of coverage in the same manner as that specified for the surveillance radar. If a secondary radar coverage plot is not required, a statement "secondary radar exceeds primary" is satisfactory.

**(1) Inbound/Outbound (IN-BND/OUT-BND).** The inbound and outbound columns in the "Vertical Coverage" field refer to the direction of flight during the outer fringe checks. Place an "X" in the appropriate block.

**(2) Altitude (ALT).** Place an "X" in the appropriate column to indicate the altitude scale. If necessary, blank out any numbers and enter the correct altitudes. These numbers indicate the actual altitudes divided by 1,000.

**(3) Reference Azimuth.** Enter the azimuth used for vertical coverage checks.

**(4) Special Notes.** Enter MTI GATE or any other data that may be used to aid in evaluating vertical coverage results.

**(5) Mileage Scales.** Place an "X" in the block to indicate the mileage scale applicable to this plot. The numbers shown are nautical miles.

**(6) Outside Air Temperature (OAT).** Enter the outside air temperature (OAT) in degrees centigrade (corrected to true) opposite each altitude plotted.

**h. Field 8 - Horizontal Coverage.** The horizontal coverage plot is subdivided into three separate circle graphs, the "A," "B," and "C" rings. The "A," "B" and "C" rings are associated with the information in field 9, the "radar parameters" and "horizontal" columns. Each of these graphs consists of an amplitude of four lines, the circumferences of which are divided into 360 degrees. The four lines of each graph represent target strengths of 0 (for unusable) through strength 3 (definitions of target quality will be found in Order 8200.1A, section 215). Up to three plots or portions thereof may be made in order to depict conditions during the inspection.

**i. Field 9 - Radar Parameters.** This field defines conditions of the radar during the vertical or horizontal checks. Entries in the "plot" column depict a condition or parameter setting of the radar during a particular check. Entries in the vertical (VERT) column indicate if a parameter or condition was applicable during the vertical check. Entries in the "A," "B," and "C" columns under the word "horizontal," indicate if a parameter or condition was applicable during the associated horizontal coverage plots. The options, orbit radius, altitude divided by 100, antenna tilt, scope range, and OAT under the "plot" column, require the entry of numerical values (e.g., scope range 50 means the radar is certified to 50 NM). The remaining "plot" column options shall be circled, if applicable. If any options are unknown, leave blank.



**FIGURE 1. FAA FORM 8240-8**

FAA FORM 8240 - 8 (6/95) (FORMFLOW)

# **APPENDIX 12. FLIGHT INSPECTION REPORT--SURVEILLANCE RADAR AND SURVEILLANCE RADAR COVERAGE PLOT FIGURE 2. FAA FORM 8240-9**

PAGE OF PAGES

SURVEILLANCE RADAR COVERAGE PLOT															ASR ARSR		
1. LOCATION:										2. DATE/DATES OF INSPECTION:							
3. GROUND EQUIP TYPE:					4. AIRCRAFT TYPE:					5. ANTENNA TILT		FIXED VAR.		6. OPTIMUM ANGLE:			
7. VERTICAL COVERAGE																	
IN-BND	OUT-BND	ALT.	REFERENCE AZIMUTH:										SPECIAL NOTES:				OAT
		45															
		40															
		35															
		30															
		25															
		20															
		19															
		18															
		17															
		16															
		15															
MILEAGE SCALES			5	10	15	20	25	30	35	40	45						
			10	20	30	40	50	60	70	80	90						
			20	40	60	80	100	120	140	160	180						
8. HORIZONTAL COVERAGE										9. RADAR PARAMETERS							
<div style="text-align: center;"> 340° 350° 000° 010° 020° 030° 040° 050° 060° 070° 080° 090°  320° 310° 300° 290° 280° 270° 260° 250° 240° 230° 220° 210° 200° 190° 180° 170° 160° 150° 140° 130° 120° 110° 100°  C B A 0 1 2 3 0 1 2 3 0 1 2 3 </div>										PLOT		Vert.	Horizontal				
													A	B	C		
										ORBIT RADIUS							
										ALTITUDE / 100							
										ANTENNA TILT							
										SCOPE RANGE							
										OAT							
										EQUIPMENT CHANNEL			A B	A B	A B		
										POWER SOURCE		P S	P S	P S	P S		
										POLARIZATION		C L	C L	C L	C L		
										MTI		ON OFF	ON OFF	ON OFF	ON OFF		
										AFC		ON OFF	ON OFF	ON OFF	ON OFF		
										FTC		ON OFF	ON OFF	ON OFF	ON OFF		
										STC		ON OFF	ON OFF	ON OFF	ON OFF		
										SECONDARY RADAR			ON OFF	ON OFF	ON OFF		
ADVISORIES		S U	S U	S U	S U												
RANGE ACCURACY		S U	S U	S U	S U												
AZIMUTH ACCURACY		S U	S U	S U	S U												
COVERAGE		S U		S U													
REGION:		FLIGHT INSPECTOR'S SIGNATURE:					TECHNICIAN'S SIGNATURE:					AIRCRAFT NO.:					
FIO:							N/A										

FAA FORM 8240 - 9 (6/95) (FORMFLOW)

**APPENDIX 13. FLIGHT INSPECTION REPORT--GENERAL CHARACTERISTICS**  
**FAA FORM 8240-14**

This form is used to report conditions which cannot be reported on the other forms or to report facilities which are not routinely inspected (e.g., taxi-way lights, airport services, etc.).

- a. **Field 1 - Location.** Complete as shown in chapter 2, paragraph 12.
- b. **Field 2 - Identifier (Ident).** Complete as shown in chapter 2, paragraph 12.
- c. **Fields 3--6.** Complete as shown in chapter 2, paragraph 12.
- d. **Field 7 - Facility Component Inspected.** Check the appropriate block. If the facility inspected is not contained in this field, mark the "other" block and enter in field 8. If an extensive narrative is required and requires more space, put an asterisk in field 8 and complete in field 12.
- e. **Field 8 - Facility Type and Class.** Enter the facility type and class if not listed in field 7.
- f. **Field 9 - Out-of-Tolerance Conditions Initially Found.** List all discrepancies not covered by a current, published NOTAM. Place an "X" in the appropriate column to show if the discrepancies were corrected or not.
- g. **Field 10 - Was a NOTAM Issued Based on the Results of This Inspection?** Place an "X" in the appropriate block and list the NOTAM in the NOTAM block.
- h. **Field 11 - Is There a Previous NOTAM in Effect?** Place an "X" in the appropriate block.
- i. **Field 12 - Remarks.** Complete as shown in chapter 3.
- j. **Facility Status.** Complete as shown in chapter 2, paragraph 12.
- k. **NOTAM's.** Complete as shown in chapter 3, paragraph 21.

**APPENDIX 13. FLIGHT INSPECTION REPORT--GENERAL CHARACTERISTICS**  
**FIGURE 2. FAA FORM 8240-14**

FLIGHT INSPECTION REPORT--GENERAL CHARACTERISTICS						REVIEW INITIALS	
1. LOCATION:						2. IDENT:	
3. COMMON SYSTEM:		4. DATE/DATES OF INSPECTION:				5. OWNER:	
6. TYPE OF INSPECTION	<input type="checkbox"/>	SITE EVALUATION	<input type="checkbox"/>	PERIODIC	<input type="checkbox"/>	SPECIAL	
	<input type="checkbox"/>	COMMISSIONING	<input type="checkbox"/>	SURVEILLANCE	<input type="checkbox"/>	INCOMPLETE	
7. FACILITY COMPONENT INSPECTED	<input type="checkbox"/>	AIRPORTS	<input type="checkbox"/>	LIGHTING SYSTEMS	<input type="checkbox"/>	OTHER (Explain)	
8. FACILITY TYPE AND CLASS:							
9. OUT OF TOLERANCE CONDITIONS INITIALLY FOUND <i>(Except those covered by previous NOTAM )</i>						CORRECTED	
						YES	NO
10. WAS A NOTAM ISSUED BASED ON THE RESULTS OF THIS INSPECTION ?		<input type="checkbox"/>	YES	11. IS THERE A PREVIOUS NOTAM IN EFFECT ?		<input type="checkbox"/>	YES
		<input type="checkbox"/>	NO			<input type="checkbox"/>	NO
12. REMARKS <i>( Clarify conditions pertinent to facility integrity not otherwise shown in this report ).</i>							
FACILITY STATUS		NOTAMs:					
UNRESTRICTED							
RESTRICTED							
UNUSABLE							
REGION:		FLIGHT INSPECTOR 'S SIGNATURE:		TECHNICIAN 'S SIGNATURE:		AIRCRAFT NO :	
FIO:							

FAA FORM 8240 - 14 (6/95) (FORMFLOW)

**APPENDIX 14. FLIGHT INSPECTION REPORT--AFTER ACCIDENT**  
**CONTINUATION SHEET, FAA FORM 8240-17**

**1. Purpose.** The flight inspection after accident report (AA) shall contain facility performance information and other conditions related to an accident or near mid-air collision or incident. The reported information shall be obtained during a special AA inspection.

**2. Reporting.** Complete a flight inspection facility performance report (see paragraph 4 of this appendix) and FAA Form 8240-17, Flight Inspection Report--After Accident Continuation Sheet, (see paragraph 5 of this appendix) for each facility involved in the accident or incident. The objective of the AA reporting procedure is to ensure that each report is complete, accurate, and reflects only the facility performance and status, as measured during the AA inspection. Therefore, report only "as found" conditions. The AA report commands the highest priority for a pre-distribution review and final approval. Special distribution requirements for this type of report are described in chapter 2, paragraph 16b; and special review procedures are described in paragraph 3 of this appendix.

**a. Incomplete Inspections.** If all the requirements of the AA inspection cannot be completed in one inspection (i.e., a visual check of the site area is required but cannot be made due to weather or other factors), the final report shall contain the dates and information from all previous inspections.

**b. Reporting Corrected Out-of-Tolerance Conditions.** Out-of-tolerance conditions found during an AA inspection shall not be corrected until after the AA inspection is completed. Report the out-of-tolerance condition, the corrected condition, and the results of any additional checks on a separate "special" maintenance request (MR) report. Explain the reason for this check in the remarks field (e.g., special inspection to correct out-of-tolerance conditions found during the AA inspection of (date)).

**3. Special Report Review.** The FIO shall expeditiously complete and forward a preliminary AA report, plus supporting worksheets, to the Flight Inspection Technical Support Branch, AVN-210, for review and approval before completing and distributing a final AA report. The preliminary report should be signed in the right hand margin by the responsible FIO supervisor. This signature indicates the preliminary report has been reviewed and is approved. The names of the flight inspector and the electronic technician shall be printed in the signature blocks. Upon completion of the preliminary report review by AVN-210, the FIO manager or responsible FIO supervisor will be notified of the results of the review and if the final report may be completed and distributed. Upon receipt of the preliminary report approval, a final report shall be completed, signed, and distributed in accordance with chapter 2, paragraph 16.

**4. Facility Performance Report Completion.** To complete the facility performance portion of the AA report, use the guidelines as described in chapters 2 and 3 and the appropriate appendixes of this order (e.g., ILS AA report shall be reported on FAA Form 8240-7, using appendix 8; VORTAC AA report shall be reported on FAA Form 8240-2, using appendix 2). Assign a facility classification (status) based on the results of the AA inspection.

**5. FAA Form 8240-17, Flight Inspection Report--After Accident Continuation Sheet, Completion.**

**a. Fields 1, 2, 4.** Information in these fields will be the same as the corresponding fields on the facility performance report.

**b. Field 3.** Enter the facility type.

**c. Field 5 - Date and Time of Accident.** Enter the month, day, year, and universal coordinated time (UTC) of the accident (e.g., 1/12/89, 1400Z). If the date and time are unknown, enter "UNKNOWN."

**d. Field 6 - Aircraft Type and Number.** Enter the aircraft manufacturer, model number, and number of the aircraft involved in the accident.

**e. Field 7 - Procedures in Use at Time of Accident.** Enter the procedure being used by the aircraft at the time of the accident (e.g., Nashville Metropolitan Airport, Nashville, TN, ILS Rwy 02L, Amdt. 1.). If this information is not available, enter "UNKNOWN." A "SAT" or "UNSAT" entry is not required.

**f. Field 8 - Equipment in Use at Time of Accident.** Enter the facility transmitter, receiver, or channel number that was in use at the time of accident. If the facility has a single transmitter, so state.

**g. Field 9 - Date and Time of After Accident Inspection.** Enter the date and UTC the AA flight inspection was started (e.g., 11/17/89, 1626Z).

**h. Field 10 - Weather Conditions at Time of Inspection.** Enter the weather conditions prevailing at the start of the inspection. Use plain English, do not use symbols.

**i. Field 11 - Procedures Inspected and Extent of Inspection.** Enter the procedure(s) inspected. If the entry is the same as in field 8, enter the note, "Same as Field 8" and describe the extent of the SIAP inspected (e.g., "evaluated the final approach segment). A "SAT" or "UNSAT" is not required.

**j. Field 12 - Obstacle Clearance Checked.** If the accident involved contact with the terrain or a man-made obstacle, the obstacle clearance should be checked. Place an "X" in the appropriate block.

**k. Field 13 - Name and Routing Symbol of Accident Coordinator/Investigator.** Enter the name and routing symbol of the person acting in the capacity of the accident coordinator/investigator for the accident being reported. If this person is not an FAA employee, enter the name and business or military address.

**l. Field 14 - Remarks.** Enter any information required to clarify data in fields 1--16. When all facility parameters are found within tolerance and no performance discrepancies are discovered, enter the following statement: "Facility operation found satisfactory."

**APPENDIX 14. FLIGHT INSPECTION REPORT--AFTER ACCIDENT CONTINUATION SHEET**  
**FIGURE 1. FAA FORM 8240-17**

<div style="float: right; font-size: small;">PAGE    OF    PAGES</div> <b>FLIGHT INSPECTION REPORT--AFTER ACCIDENT CONTINUATION SHEET</b>		REVIEW INITIALS
1. LOCATION:		2. IDENT:
3. FACILITY TYPE:	4. DATE / DATES OF INSPECTION:	
5. DATE AND TIME OF ACCIDENT:	6. AIRCRAFT TYPE AND NUMBER:	
7. PROCEDURES IN USE AT TIME OF ACCIDENT:		
8. EQUIPMENT IN USE AT TIME OF ACCIDENT:		
9. DATE AND TIME OF AFTER ACCIDENT INSPECTION:                      DATE:                      TIME:		
10. WEATHER CONDITIONS AT TIME OF INSPECTION:		
11. PROCEDURES INSPECTED AND EXTENT OF INSPECTION:		
12. SIAP:  <input type="checkbox"/> SATISFACTORY <input type="checkbox"/> UNSATISFACTORY	13. NAME AND ROUTING SYMBOL OF ACCIDENT COORDINATOR/INVESTIGATOR	
14. REMARKS:		



**APPENDIX 15. FLIGHT INSPECTION REPORT--LORAN-C**  
**FAA FORM 8240-5**

This report shall be used for reporting all site, commissioning, periodic, special, and other inspections. It can be used as a Loran-C worksheet when conducting flight inspection evaluations. Record the following information:

**a. Field 1 - Location.** Complete as shown in chapter 2, paragraph 12.

**b. Field 2 - Identification (Ident).** Enter the identification for the approach as listed in the Aircraft Management Information System (AMIS). For approaches which terminate at a point in space, enter the identification as listed in the AMIS. List all airports served by the point in space approach in field 11.

**c. Field 3 - Common System.** Complete as shown in chapter 2, paragraph 12.

**d. Field 4 - Date/Dates of Inspection.** Complete as shown in chapter 2, paragraph 12.

**e. Field 5 - Runway.** Enter the runway number served by the Loran-C approach being inspected. If the approach is not to a specific runway, leave blank.

**f. Field 6 - Type of Inspection.** Complete as shown in chapter 2, paragraph 12.

**g. Field 7 - Loran Stations.**

**(1) Owner.** Mark the block of the owner of the stations used during the SIAP; if the "Other" block is marked, enter the name of the owner.

**(2) Loran Chain.** Enter the numerical chain number of the station transmitters published for use on the procedure (e.g., 9960).

**(3) Dedicated Triad.** Enter the letter identifier of each Loran-C transmitter published for the procedure (e.g., M, X, Y).

**h. Field 8 - Local Area Monitor (LAM) Data.**

**(1) LAM Name.** Enter the name of the facility where the local area monitor (LAM) is located (e.g., ABC VTAC). If a LAM is not required, enter "none" and explain in field 11. If "none" is entered, the remainder of field 8 should remain blank.

**(2) LAM Location.** Enter the latitude and longitude coordinates of the LAM location.

**(3) Date Installed (not required for periodics, leave blank).** Enter the date of the installation of the LAM. If unknown, enter "unknown."

**(4) SIAP Distance. Not required.**

**(5) Area Calibration Date.** Enter the date or time period for the receiver area TD calibration values, or TD correction factors used during the evaluation, or those values obtained from NFOLDS. If the values were obtained from the published TD correction factors (in the approach plates), an entry is not required. If a date(s) is not available, insert an asterisk and explain in field 11.

**(6) Calibration (Cal) Values, Stations (Sta).** Enter the appropriate station letter identifier used during the evaluation and the related receiver microsecond TD calibration values. Enter in tenths of a microsecond (e.g., x = 1.5 micro sec, y = -2.3 micro sec).

**(7) Area Calibration (Cal) Source.** If the values were obtained from NFOLDS, enter NFOLDS. If the values were obtained from the published approach procedures, enter the approach plates and the effective dates (e.g., approach plates, SE VOL. 3, 4/30/92 - 6/25/92. If another source was used, enter the name and date of the source.

**i. Field 9 - Waypoints Data.**

**(1) MAP/AER Waypoint (WPT).** This waypoint shall be reported on every inspection. If the missed approach point (MAP) and the approach end of the runway (AER) are different locations and they are reported separately, mark out the inappropriate name and report the other WPT in field 11.

**(a) LAT/LON.** Enter the published latitude and longitude coordinates of the appropriate waypoint.

**(b) WPT Accuracy, NM.** The accuracy of the MAP or AER waypoint shall be reported on every inspection. The reporting of the accuracy of the remainder of the SIAP waypoints is as required in Order 8200.1A, section 209. Enter the difference between the published location and the received signal location in tenths of a mile.

**(c) Signal Quality, SAT/UNSAT.** Report this information on all SIAP waypoints and offset segment checks. If all the signal parameters are satisfactory at the waypoint, place an "X" in the "SAT" space. If unsatisfactory, place an "X" in the "UNSAT" space and explain in the space provided or, if necessary, in field 11.

**(2) FAF, IAF, Transition (Trans), and Other Waypoints (Wpts).** Report as shown in paragraph i(1)(a), (b), or (c).

**(3) Offsets.** In the "distance" (DIST) block, enter the distance between the offset track and the final approach course in tenths of a mile. In the signal quality block, complete as shown in paragraph i(1)(c).

**j. Field 10 - Approach Evaluation.**

**(1) Human Factors Cockpit Workload.** Complete using Order 8200.1A, Section 214, paragraph 214.43, as a guideline. Explain unsatisfactory conditions in the "Explain" block and in field 11, if necessary.

**(2) Approach Evaluation.** Place an "X" in the appropriate block. Explain unsatisfactory conditions in the "Explain" block and in field 11, if necessary.

**(3) Obstacle Verification.** Place an "X" in the appropriate block. Explain unsatisfactory conditions in the "Explain" block and in field 11, if necessary.

**k. Field 11 - Remarks.** Note any additional information.

**l. Approach Status.** Mark the appropriate block to describe the classification of the SIAP at the completion of the evaluation.

**m. NOTAM's.** Complete as shown in chapter 3, paragraph 21.

APPENDIX 15. FLIGHT INSPECTION REPORT - LORAN-C  
FIGURE 1. FAA FORM 8240-5

FLIGHT INSPECTION REPORT--LORAN-C										REVIEW INITIALS	
1. LOCATION:										2. IDENT:	
3. COMMON SYSTEM:				4. DATE/DATES OF INSPECTION:						5. RUNWAY:	
6. TYPE OF INSPECTION				SITE EVALUATION		PERIODIC		SPECIAL			
				COMMISSIONING		SURVEILLANCE		INCOMPLETE			
7. LORAN STATIONS											
OWNER		USCG		OTHER ( Explain )				LORAN CHAIN			
		USAF						DEDICATED TRIAD			
8. LOCAL AREA MONITOR DATA											
LAM NAME:				LAM LOCATION		LAT: LON:		DATE INSTALLED:		SIAP DISTANCE:	
AREA CALIBRATION DATE:				CAL VALUES		STA: MICRO SEC STA: MICRO SEC		AREA CAL SOURCE:			
9. WAYPOINTS DATA											
MAP / AER WPT		LAT: LON:		WPT ACCURACY:		NM		SIGNAL QUALITY		SAT UNSAT Explain:	
FAF WPT		LAT: LON:		WPT ACCURACY:		NM		SIGNAL QUALITY		SAT UNSAT Explain:	
IAF WPT		LAT: LON:		WPT ACCURACY:		NM		SIGNAL QUALITY		SAT UNSAT Explain:	
TRANS WPT		LAT: LON:		WPT ACCURACY:		NM		SIGNAL QUALITY		SAT UNSAT Explain:	
OTHER WPTS		LAT: LON:		WPT ACCURACY:		NM		SIGNAL QUALITY		SAT UNSAT Explain:	
OFFSETS		DIST:						SIGNAL QUALITY		SAT UNSAT Explain:	
10. APPROACH EVALUATION											
HUMAN FACTORS		SAT		Explain:							
COCKPIT WORKLOAD		UNSAT									
APPROACH EVALUATION		SAT		Explain:							
		UNSAT									
OBSTACLE VERIFICATION		SAT		Explain:							
		UNSAT									
11. REMARKS:											
APPROACH STATUS		NOTAMs:									
UNRESTRICTED											
RESTRICTED											
UNUSABLE											
REGION:		FLIGHT INSPECTOR'S SIGNATURE:				TECHNICIAN'S SIGNATURE:				AIRCRAFT NO :	
FIO:											

FAA FORM 8240 - 5 (6/95) (FORMFLOW)

**APPENDIX 16. FLIGHT INSPECTION REPORT--**  
**MICROWAVE LANDING SYSTEM, FAA FORM 8240-20**

1. **Field 1 - Location.** Complete as shown in chapter 2, paragraph 12.
2. **Field 2 - Identification (Ident).** Complete as shown in chapter 2, paragraph 12. Omit the letter "M" which follows the MLS identification.
3. **Fields 3 - 6.** Complete as shown in chapter 2, paragraph 12.
4. **Field 7. Runway No.** Enter runway number served by the MLS.
5. **Field 8 - Facility Inspected.** Place an "X" in the appropriate block(s) to signify components inspected. DME refers to DME or DME/P installed with the MLS (see field 12). If an offset azimuth is inspected, enter a statement in field 15.
6. **Field 9 - Azimuth.** Use this field to report the operational characteristics of the azimuth portion of the MLS.
  - a. **Azimuth (AZ) Course (CRS) Bearing (BRG).** Enter the front azimuth course bearing(s) that support the procedure(s).
  - b. **Back Azimuth (BAZ) Course (CRS) Bearing (BRG).** Enter the back azimuth course bearing(s) that support the procedure(s).
  - c. **Category.** Enter the category of the most stringent operations supported (e.g., category I, II, or III).
  - d. **Front Azimuth/Back Azimuth (TX1/TX2).** Use these columns to report specific operational parameters for each transmitter. Use the "OT," "INITIAL," and "FINAL" columns as directed in appendix 8, paragraphs 6c, d, and e.
    - (1) **Alignment.** Enter the alignment error of the approach course azimuth in hundredths of a degree, left or right of the designated azimuth course when the alignment is determined by manual methods (e.g., .04L indicates the course is .04 degrees left of the designated approach azimuth). Enter the alignment error of the approach course azimuth as presented by the AFIS when using automated methods (e.g., -.04 indicates the course is .04 degrees right of the designated approach azimuth).
    - (2) **Path Following Error (PFE).** Enter the most significant error in hundredths of a degree and tenths of a mile. (e.g., .03/.8 indicates a .03 degree error at .8 NM from threshold)
    - (3) **Path Following Noise (PFN).** Enter as indicated in paragraph 6d(2).
    - (4) **Control Motion Noise (CMN).** Enter as indicated in paragraph 6d(2).
    - (5) **Out-of-Coverage Indications (OCI).** Enter "S" to indicate that OCI is installed and satisfactory. If OCI is installed and unsatisfactory, enter "U." If OCI is not installed, leave blank.
    - (6) **Clearance.** Enter "S" if the results of the clearance orbit are satisfactory. Enter "U" if unsatisfactory.

**(7) Basic Data Words.** Enter "S" to signify all basic words transmitted by the facility are in agreement with the facility data. If words are missing, incorrect, incomplete, or cannot be verified by other means, enter a "U."

**(8) Auxiliary Data Words.** Enter "S" to signify all auxiliary words transmitted by the facility are in agreement with the facility data. If words are missing, incorrect, incomplete, or cannot be verified by other means, enter a "U."

**(9) Proportional (Prop) Guidance - Left.** Enter the commissioned maximum proportional guidance angle left of the procedural azimuth.

**(10) Proportional (Prop) Guidance - Right.** Enter the commissioned maximum proportional guidance angle right of the procedural azimuth.

**(11) Identification.** Enter "S" if the coded identification is satisfactory. Enter "U" if unsatisfactory.

**(12) Usable Distance.** If a minimum power check is conducted to check the service volume, enter the maximum distance in miles from the antenna where the check was satisfactory.

**(13) Monitor.**

**(a) Alignment - Left (L) Reference.** Enter the course displacement, as indicated in paragraph 6d(1), with the course shifted left.

**(b) Alignment - Right (R) Reference.** Enter the course displacement, as indicated in paragraph 6d(1), with the course shifted right.

**7. Field 10 - Runway Azimuth.** Use this field to report the operational characteristics of the azimuth portion of the MLS in the runway environment. Use the transmitter numbers as shown in field 9, "Azimuth," of this report form.

**a. Zone-4/Zone-5.** Complete each column using the same guidelines as directed for the "OT," "INITIAL," and "FINAL" columns in appendix 8, paragraphs 6c, d, and e.

**b. PFE, PFN, CMN.** Enter the most significant error in hundredths of a degree and hundredths of a mile to runway threshold, for each zone (e.g., .04/.08 indicates a .04 error at .08 NM from threshold).

**8. Field 11 - Elevation.** Use this field to report the operational characteristics of the elevation portion of the MLS.

**a. Minimum Glidepath (MGP).** Enter the commissioned minimum glidepath angle in degrees.

**b. Category.** Enter as indicated in paragraph 6c.

(1) Elevation Angle. Enter the measured, actual elevation angle in hundredths of a degree. If the reported angle is not the actual angle, explain in field 15.

(2) PFE. Enter as indicated in paragraph 6d(2).

(3) PFN. Enter as indicated in paragraph 6d(2).

(4) CMN. Enter as indicated in paragraph 6d(2).

(5) OCI . Enter as indicated in paragraph 6d(5).

**c. Below MGP Clearance.** Enter "S" if clearance below the minimum glidepath is satisfactory. Enter "U" if unsatisfactory.

**d. Usable Distance.** If a minimum power check is conducted to check the service volume, enter the maximum distance in miles from the antenna where the check was satisfactory.

**e. Monitor.**

**(1) Elevation (EL) Angle High - Monitor Reference.** Enter the elevation angle, in hundredths of a degree, with the elevation angle shifted high.

**(2) Elevation Angle Low - Monitor Reference.** Enter the elevation angle, in hundredths of a degree, with the elevation angle shifted low.

**9. Field 12 - General.** This field is provided to document the operational performance of DME and lighting systems which are checked concurrently with the MLS.

**a. DME.** Enter "X" in the appropriate block to indicate satisfactory or unsatisfactory operation.

**b. Lighting Systems.** Satisfactory means that all lighting features required to support the MLS are operational. If an out-of-tolerance condition is found and not corrected, indicate the lights are unsatisfactory and explain in field 15.

**10. Field 13 - Facility Status.** Enter an "X" in the appropriate block to indicate the classification (status) of each MLS component, if inspected..

**11. Field 14 - NOTAM's.** Enter NOTAM's or facility restrictions as described in appendix 8, paragraph 9.

**12. Field 15 - Remarks.**

**a. Explain out-of-tolerance conditions** and any action taken by maintenance personnel to correct the condition.

**b. Exempted Structure.** When out-of-tolerance PFE, PFN, or CMN is exempted by the provisions of Order 8200.1A, paragraph 220.4, place an asterisk in the "OT" column next to the particular structure to be exempted and explain in field 15 (e.g., PFE SAT per Order 8200.1A, paragraph 220.4).

**APPENDIX 16. FLIGHT INSPECTION REPORT--MICROWAVE LANDING SYSTEM**  
**FIGURE 1. FAA FORM 8240-20**

FLIGHT INSPECTION REPORT--MICROWAVE LANDING SYSTEM												REVIEW INITIALS	
1. LOCATION:												2. IDENT:	
3. COMMON SYSTEM:				4. DATE / DATES OF INSPECTION:						5. OWNER:			
6. TYPE OF INSPECTION				SITE EVALUATION		PERIODIC		SPECIAL					
				COMMISSIONING		SURVEILLANCE		INCOMPLETE					
7. RUNWAY NO:		8. FACILITY INSPECTED		FRONT AZIMUTH		ELEVATION		LIGHTING SYSTEM					
				BACK AZIMUTH		D M E							
9. AZIMUTH													
FRONT AZIMUTH						AZ. CRS. BRG:		BACK AZIMUTH					
TX 1			TX 2			BAZ. CRS. BRG:		TX 1			TX 2		
OT	INITIAL	FINAL	OT	INITIAL	FINAL	CATEGORY:		OT	INITIAL	FINAL	OT	INITIAL	FINAL
						ALIGNMENT							
						PFE							
						PFN							
						CMN							
						OCI							
						CLEARANCE							
						BASIC DATA WORDS							
						AUX DATA WORDS							
						PROP. GUIDANCE - LEFT							
						PROP. GUIDANCE - RIGHT							
						IDENTIFICATION							
						USABLE DISTANCE							
						MONITOR							
						ALIGNMENT - L. REF							
						ALIGNMENT - R. REF							
ZONE 4						10. RUNWAY AZIMUTH		ZONE 5					
						PFE							
						PFN							
						CMN							
11. ELEVATION						12. GENERAL							
TX 1			TX 2			MGP:						SAT	UNSAT
OT	INITIAL	FINAL	OT	INITIAL	FINAL	CATEGORY:		DME					
						ELEVATION ANGLE		LIGHTING SYSTEMS					
						PFE							
						PFN							
						CMN		UNRESTRICTED					
						OCI		RESTRICTED					
						BELOW MGP GUIDANCE		UNUSABLE					
						USABLE DISTANCE							
						MONITOR							
						EL. ANGLE - H. REF							
						EL. ANGLE - L. REF							
15. REMARKS:													
REGION:		FLIGHT INSPECTOR'S SIGNATURE:				TECHNICIAN'S SIGNATURE:				AIRCRAFT NO.:			
FIO:													

FAA FORM 8240 - 20 (6/95) (FORMFLOW)



**APPENDIX 17. FLIGHT INSPECTION REPORT - GPS NON PRECISION (NP)**  
**FAA FORM 8240-5-1**

This report shall be used for reporting all site, commissioning, periodic, special, and other inspections. Record the following information:

**a. Field 1 - Location.** Complete as shown in chapter 2, paragraph 12.

**b. Field 2 - Identification (Ident).** Enter the airport ident.

**c. Field 3 - GPS Ctrl Number.** Enter the GPS control number listed on the PC form of the procedure package.

**d. Field 4 - Date/Dates of Inspection.** Complete as shown in chapter 2, paragraph 12.

**e. Field 5 - Runway.** Enter the runway number served by the GPS approach being inspected. If the approach is not to a specific runway, enter NA.

**f. Field 6 - Type of Inspection.** Complete as shown in chapter 2, paragraph 12.

**g. Field 7 - Waypoints Data.**

**(1) Missed Approach Waypoint (MAWP) -** Each waypoint shall be reported when inspected.

**(a) Waypoint Name -** Enter name as depicted on SIAP. On commissioning checks, enter the latitude/longitude of the waypoint.

**(b) SAT/UNSAT -** If the data accuracy and position determination are satisfactory at the waypoint, place an "X" in the "SAT" space. If unsatisfactory, place an "X" in the "UNSAT" space and explain in field 9.

**(2) Final Approach Waypoint (FAWP), Initial Approach Waypoint (IAWP), Intermediate Waypoint (IWP), Missed Approach Turning Waypoint (MATWP), and Missed Approach Holding Waypoint (MAHWP).** Report as shown in paragraph g(1)(a) and (b). Report any additional waypoints in field 9.

**(3) Final Approach Waypoint (FAWP) - Waypoint Displacement Error (WPDE) -** Report the error (in feet). Report out-of-tolerance conditions as described in Chapter 3, paragraph 21a.

**(4) Missed Approach Waypoint (MAWP) - Waypoint Displacement Error (WPDE) -** Report the error (in feet). Report out-of-tolerance conditions as described in Chapter 3, paragraph 21a.

**h. Field 8. - Approach Evaluation.**

**(1) Human Factors Cockpit Workload.** Complete using Order 8200.1A, Section 214, paragraph 214.43, as a guideline. Place an "X" in the appropriate box. Explain unsatisfactory conditions in field 9, if necessary.

**(2) Approach Procedure.** Place an "X" in the appropriate box. Explain unsatisfactory conditions in field 9, if necessary.

**(3) Obstacle Verification.** Place an "X" in the appropriate box. Explain unsatisfactory conditions in field 9, if necessary.

**(4) Communications.** Place an "X" in the appropriate box. Explain unsatisfactory conditions in field 9, if necessary.

**(5) Lights.** Place an "X" in the appropriate box. Explain unsatisfactory conditions in field 9, if necessary.

**i. Field 9. Remarks.** Complete as shown in chapter 3, paragraph 21. Additionally, when conducting GPS Flight Inspection System (GFIS) flight inspections, enter a remark to indicate the location and coordinates of the GFIS ground unit, e.g., "GFIS ground unit located at approach end of Rwy 28, N 28 34 28.20<sup>0</sup> and E 151 20 15.10<sup>0</sup>."

**j. Approach Status.** Mark the appropriate block to describe the classification of the SIAP at the completion of the evaluation.

**k. NOTAM's.** Complete as shown in chapter 3, paragraph 21.

# **APPENDIX 17. FLIGHT INSPECTION REPORT - GPS NP** **FIGURE 1. FAA FORM 8240-5-1**

FLIGHT INSPECTION REPORT-- GPS NP							REVIEW INITIALS		
1. LOCATION:							2. IDENT:		
3. GPS CTRL NUMBER:			4. DATE/DATES OF INSPECTION:				5. RUNWAY:		
6. TYPE OF INSPECTION			COMMISSIONING		SURVEILLANCE		INCOMPLETE		
			PERIODIC		SPECIAL				
7. WAYPOINT DATA									
	WAYPOINT NAME	SAT	UNSAT		WAYPOINT NAME	SAT	UNSAT		
IAWP				MATWP					
IAWP				MATWP					
IAWP				MAHWP					
IAWP				WAYPOINT DISPLACEMENT ERROR		FAF	MAP		
IAWP				8. APPROACH EVALUATION			SAT	UNSAT	
IWP				HUMAN FACTORS					
IWP				APPROACH PROCEDURE					
IWP				OBSTACLE VERIFICATION					
FAWP				COMMUNICATIONS					
MAWP				LIGHTS					
9. REMARKS:									
APPROACH STATUS		NOTAMS:							
UNRESTRICTED									
RESTRICTED									
UNUSABLE									
REGION:		FLIGHT INSPECTOR'S SIGNATURE:			TECHNICIAN'S SIGNATURE:			AIRCRAFT NO:	
FIO:									

FAA FORM 8240 - 5 - 1 (12/96) (FORMFLOW)

**APPENDIX 18. FLIGHT INSPECTION REPORT - GFIS WORKSHEET,**  
**FAA FORM 8240-5-2**

This form provides a means to document the GPS segments that were evaluated and the filename of the final approach segment that is required to be recorded to disk. It shall be used on all GFIS flight inspection evaluations and will be retained in the facility folder along with the corresponding computer floppy disk.

- a. **Field 1: Location.** Complete as shown in chapter 2, paragraph 12.
- b. **Field 2: Identification (Ident).** Enter the airport identifier.
- c. **Field 3: GPS Ctrl Number.** Enter the GPS control number listed on the PC form of the procedure package.
- d. **Field 4 - 6:** Complete as shown in chapter 2, paragraph 12.
- e. **Field 7: Ground Station Coordinates.** Enter the coordinates of the GFIS ground transceiver, as viewed on the GFIS Position Update Control page, after initializing to a ground station benchmark or aircraft station fix.
- f. **Field 8: Waypoint Data**

(1) **SIAP/SEG.** Dissect the GPS flight procedure into segments to be flown. Name each segment in the following format, i.e., RW0410 where RW is the fixed abbreviation for runway, followed by the two-digit runway number and ending with the sequential segment numbers assigned by the technician. Ensure the FAWP and the MAWP are properly designated to allow the software to calculate waypoint displacement errors. Optionally, you may designate the last two waypoints in any segment as the FAFWP and the MAPWP respectively when entering the coordinate data on page 3 (GPS Flight Plan Maintenance) of the NAV Test Control Page. This will provide a calculated WPDE for these waypoints and automatically end the profile at the MAP designated waypoint. The above example refers to runway 4, segment number 10.

- (2) **WPT Start.** Enter the starting waypoint of the segment evaluated.
- (3) **WPT End.** Enter the ending waypoint of the segment evaluated.
- (4) **FAF Name & WPDE.** - Enter the 5-character name of the FAWP, followed by the calculated waypoint displacement error shown on the NAV Test Control Page.
- (5) **MAP Name & WPDE.** Enter the 5-character name of the MAWP, followed by the calculated waypoint displacement error shown on the NAV Test Control Page.
- (6) **Filename Sequence.** Enter the sequence number (last three characters of the filename) that applies to the segment flown.

(7) **Segment Notes.** Enter any additional information that may be useful to interpreting the results of the flight inspection of that segment.

- g. **Field 9: Remarks.** Enter as appropriate.

GFIS WORKSHEET							
1. LOCATION:						2. IDENT:	
3. COMMON SYSTEM:		4. DATE/DATES OF INSPECTION:				5. RUNWAY:	
6. TYPE OF INSPECTION				COMMISSIONING		SURVEILLANCE	
				PERIODIC		SPECIAL	
7. GROUND STATION COORDINATES:							
8. WAYPOINT DATA							
SIAP/SEG	WPT START	WPT END	FAF NAME & WPDE	MAP NAME & WPDE	FILENAME SEQUENCE	SEGMENT NOTES	
9. REMARKS:							
FACILITY STATUS		NOTAMs:					
UNRESTRICTED							
RESTRICTED							
UNUSABLE							
REGION:		FLIGHT INSPECTOR'S NAME:		TECHNICIAN'S NAME:		AIRCRAFT TYPE :	AIRCRAFT NO :
FIO:							

**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF  
FACILITY DATA, FAA FORM 8240-22**

**1. Purpose and Distribution.** Information required on this form is used to prepare computer programs for FAA flight inspection aircraft and in the development of terminal instrument procedures. This data must be kept valid and current. Submit a new facility data form when any of the information is changed (e.g., frequency change, antenna placement, equipment change, etc.). Do not report temporary changes in facility restrictions or inoperative components. Forward the original copy of FAA Form 8240.22 to the Flight Inspection Technical Support Branch, AVN-210, Post Office Box 25082, Oklahoma City, Oklahoma 73125.

NOTE: Offices with AMIS terminals may transmit facility and airport data to the Flight Inspection Technical Support Branch, AVN-210, by using the AMIS airport and facility menu selecting the data sheet transmittal option.

**2. Scope of the Form.** Use a separate form for each facility and one for each precision approach except as follows:

**a. MLS/ILS.** Report the localizer and glidepath of an ILS system on the same report form and report the azimuth and elevation of an MLS system on the same report form. When reporting an MLS facility, draw a line through all ILS references on the report form.

**b. MLS/ILS Supporting NAVAID's.** Report marker beacons, compass locators, and collocated DME data with the MLS/ILS data.

**c. VORTAC and VOR/DME.** DME and azimuth functions of VORTAC and VOR/DME facilities may be reported together if the antennas are collocated. Collocation of antennas, for facility data reporting only, is defined as 10 feet or less. (See instructions for completing block 19.)

**d. PAR and ASR.** PAR and ASR facilities operating from the same unit may be reported together. If the PAR serves more than one runway, complete a separate form for each runway served by the PAR. Report the ASR facility on the data sheet containing the PAR serving the primary instrument runway or report the ASR on a separate form.

**e. Control Towers/Communications Sites.** Forms will not be required for control towers or transmitter/receiver sites unless they contain a direction finding (DF) or ultra high frequency (UHF) beacon.

**3. Information not Applicable to the NAVAID.** When completing a required section, leave any block blank when not applicable.

**4. Decimal Accuracy.** When using trigonometry functions for computations, report values to nearest hundredth. For other accuracies, see the reporting instructions by block.

**5. True Bearing.** References to true bearing imply true azimuth in degrees and hundredths of degrees.

**6. Geographic Coordinates.** All latitude and longitude coordinates shall be referenced to NAD 1983 or World Geodetic System (WGS) 1984, depending on location. The reference system used shall be specified with each set of coordinates. When entering coordinates, precede the latitude with "N" or "S" and the longitude with "E" or "W".

**7. Displaced Threshold.** When preparing a form on a facility which supports a runway having a displaced threshold, enter all data pertaining to runway threshold in reference to the beginning of the actual landing area of the runway. Displaced thresholds, due to temporary (less than 90-day) construction projects or runway repairs, should not be reported unless a precision approach touchdown point has been or is being changed.

**8. Completing the Sections.**

**a. Section I.** Complete section I for all facilities located on an airport. For facilities not located on an airport, complete only blocks 1, 5, and 6.

**b. Section II.** Complete section II on all facilities. When commissioning data is available, fill out all blocks; otherwise, only those items detailing information about the equipment and its location need to be furnished to the flight inspection activity prior to the commissioning flight check.

**c. Sections III, IV, V, and VI.** In addition to completing sections I and II as specified above, complete the following sections according to type of facility: PAR, sections IV and VI; MLS elevation or ILS glide slope, section IV; MLS azimuth or ILS localizer-type, section III; blocks 72 and 73 of section IV; ASR, ARSR, SECRA, section VI; and VORTAC, VOR, TACAN, VOR/DME, section V. Complete section VI as specified.

**d. Visual Glide Slope Indicator.** For visual glide slope indicator (VGSI), complete all of section I, complete blocks 8, 10, 13, 14, 16 (enter - see remarks), 18, 24, 25, 30, 31, 32, 34, 35 (TCH), 36, and 37 of section II, and blocks 60, 61, 62, 63, 72, and 73 of section IV. For precision approach path indicator (PAPI) and pulsating visual glide slope indicator (PVGSI), in addition to the above blocks, enter distance from threshold to runway centerline abeam the light bar/box in block 60.

**REPORTING INSTRUCTIONS BY BLOCK**

**SECTION I. AIRPORT/FACILITY**

**1. Location.** Enter the city and state or country where the facility is located.

**2. International Civil Aviation Organization (ICAO) Identification (Ident).** Enter the ICAO airport designator. In the contiguous United States, this is "K" plus the airport identifier (e.g., KOKC).

**3. Magnetic Variation (Mag Var)/Epoch Year (Yr).** Enter the magnetic variation of record for the airport reference point and the epoch year. If unknown, contact the National Flight Procedures Office, AVN-160.

**4. Airport Reference Point.** Enter the latitude and longitude of the airport reference point in degrees, minutes, and seconds to the nearest hundredth of a second.

**5. Airport/Facility Name.** Enter the facility name and airport name if facility is located on airport. If the facility does not have a name, enter the associated airport name or name of the military installation.

**6. Owner.** Indicate the actual owner of the facility (e.g., FAA, U.S. Air Force, or U.S. Navy). If the facility is owned by a foreign country and being flight checked by a U.S. agency, indicate the country and agency (e.g., Thailand, DOA).

**7. Field Elevation (MSL).** Enter the official airport elevation to the nearest foot. If elevation is below sea level, enter a minus sign preceding the elevation (e. g., -23 feet).

## **SECTION II. GENERAL**

**8. Type Facility.** Indicate the type facility(ies) being reported on (e.g., VORTAC, glide slope, simplified directional facility (SDF), etc.). If DME is located at the ILS, report it as an ILS/DME. If DME is located at an MLS, report it as an MLS/DME. If DME is located at an NDB, report it as NDB/DME.

**9. Frequency (Freq)/Channel.** Indicate the published frequency and/or channel of the facility(ies). Leave blank when reporting on an air traffic control or communications facility. If a DME is collocated with the localizer, glide slope, or NDB, report the DME channel with its associated facility (e.g., LOC 109.9/36X, if collocated with the MLS, report as AZ CH 602/5061.6; DME 048Y).

**10. Identification.** Enter the 3-letter coded station identifier. When reporting on a glide slope, enter the 3-letter identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR or PAR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the 3-letter identification (e.g., NQIB). These alpha codes shall be the same as those used to accomplish the daily flight log. For ARSR facilities, use identifier of the controlling ARTCC or military installation plus an alpha subcode unique to the particular ARSR. Light systems serving runways having an ILS, LOC, MLS, LDA, SDF, or IMLS will use the identification of the azimuth system. For runways not served by an azimuth-type facility, use the airport identification plus an alpha character for all lighting serving a particular runway.

**11. Class/Category.** Enter the frequency-protected service volume for VOR, VORTAC, VOR/DME, or TACAN (T, H, L), the MLS or ILS performance category (category I, II, or III), or NDB class (MH, H, HH, LOM, LMM). Leave blank if not applicable.

**12. Common System.** Complete this block by entering an "X" in the "Yes" block if the facility is depicted for public use on any instrument approach procedure; if not, enter an "X" in the "No" block.

**13. Commissioned Date.** Enter the month, day, and year the facility was commissioned (e.g., July 6, 1989, shall be entered as 7/6/89).



**14. Equipment Type.** For MLS or ILS facilities, enter the equipment type code from block 84, paragraph 84m of this appendix. For other facilities, enter the nomenclature of the equipment. In cases where more than one facility of the same type (except ILS or MLS) is installed at an airport, identify specific equipment by the use of serial numbers or alpha symbols (e.g., TPN-8, SN-13 or MPN-13A, SN 154). For VORTAC, VOR, VOR/DME, and TACAN facilities, enter "2ND-GEN," if appropriate. Leave blank when reporting communications facilities which have numerous types/nomenclature of equipment.

**15. Type Antenna.** Enter the antenna nomenclature and principle of operation (e.g., GRA-121, fixed dipole, rotating parasitics). For MLS or ILS facilities, enter the antenna type code from block 84, paragraph 84m, of this appendix. For MLS, also enter the number of degrees of proportional guidance of the azimuth system (e.g., type 1/40 degrees). Leave blank for radar or communications facilities.

**16. Antenna Elevation (Elev).** Enter the elevation of the antenna base in feet, mean sea level (MSL) (to the nearest tenth, if available). If elevation is below sea level, precede the value by a minus sign (e.g., -15 feet). For ILS glide slope, use ground elevation, not the elevation of the pad; for an MLS, use the phase center of the elevation antenna; for waveguide glide slope, use the elevation of the midpoint of the antenna mast.

**17. Antenna Height - FT AGL.** For MLS, enter the height of the elevation phase center of the antenna above the reference datum elevation (i.e., reference datum elevation is the point on runway centerline ABEAM the elevation phase center antenna).

**18. Control Station and Frequency.** Enter the voice call sign of the station normally having remote control or monitor capability of a facility. Also, enter the primary frequency on which to establish contact. For VGSI systems, enter the agency/facility which has on/off control; if automatic control, so indicate.

**19. Antenna Location.** Enter the geographic coordinates measured at the center of the antenna array in the following manner: Report all antenna locations, except communications facilities, in accuracies equivalent to two decimal portions of arc-seconds. This means that the coordinates will be reported as XX degrees, XX minutes, XX.XX seconds. Enter "N" or "S" to show latitude and "E" or "W" to show longitude (e.g., N31, 16', 22.22" and E31, 16', 22.22"). For communications facilities with several antennas, use coordinates from the center of the transmitter antenna group. When reporting on combined facilities (a VORTAC, VOR/DME, etc.), with antennas which are not collocated, enter "see block 84" in this block and enter the separate antenna coordinates in block 84. For MLS or ILS facilities, enter the coordinates in blocks 38 and 55.

**20. Primary Power.** Enter an "X" in the appropriate box.

**21. Standby Power.** Enter an "X" in the appropriate box.

**22. Standby Equipment (Equip).** Enter an "X" in appropriate box(es) and, if more than one box is marked, enter the component on the line above the box to identify the component to which the "X" applies (e.g., VOR has dual transmitters and TACAN has single transponder: Enter an "X" in "Yes" box and "VOR" on the line above the "Yes" box; enter an "X" in the "No" box and "TACAN" on the line above the "No" box). If additional space is needed, continue in block 84.

**23. Monitor.** Enter an "X" in appropriate box(es).

**24. Runway Number.** (Complete this block for ILS, MLS, PAR, VGSI, and localizer-type facilities.) Identify the primary instrument runway served by the facility. When more than one runway is served by a precision approach aid (such as a PAR), make a separate facility data form for each runway. For ASR or DF equipment, leave blank and complete block 83; for VOR, VORTAC, VOR/DME, or TACAN, leave blank.

**25. Runway True Bearing.** Enter the true bearing of the runway to the nearest hundredth. For offset azimuth facilities, enter the course azimuth separately (see block 46).

**26. Magnetic (Mag) Variation/Year.** Enter the magnetic variation listed in AVN-210 files and the epoch year for navigation aids (e.g., E10 degrees, 1985). If the magnetic variation is not on file, contact AVN-160 to determine the magnetic variation and epoch year.

**27. Voice.** If the facility has remote voice capability, indicate where the microphone is located and the type of service (e.g., Automatic Terminal Information Service (ATIS), from Jackson, MS (JAN), Flight Service Station (FSS), enter "ATIS/JAN FSS").

**28. Automated Flight Inspection System (AFIS) Radial.** Enter (to the nearest degree) the AFIS reference radial.

**29. Power Output.** Indicate the transmitter power output (peak power for pulsed equipment and average power for nonpulsed transmitters) in watts, kilowatts, or db, measured at the transmitter.

**30. Runway Dimensions.** Enter (to the nearest foot) in the spaces provided, the length, width, and landing length of the primary instrument runway served by the facility. Leave blank for nonprecision facilities.

**31. Displaced Threshold (Th).** Enter an "X" in appropriate box. If the runway threshold is displaced, enter the amount of displacement (to the nearest foot) in the space provided. Leave blank for nonprecision facilities.

**32. Commissioned.** Enter the commissioned localizer course width and/or commissioned ILS/MLS/PAR/VGSI glidepath angle, to the nearest hundredth of a degree.

**33. ASR Vertical (Vert) Coverage and Operational Requirements (Req).** Enter the radial used to determine vertical coverage and define the operational requirements for the ASR. If more space is needed to define operational requirements, use block 84.

**34. Threshold Elevation (Elev).** (Complete this block for ILS, localizer, SDF, LDA, MLS, PAR, VGSI facilities only). Enter the MSL altitude (to the nearest tenth of a foot) of the threshold (or displaced threshold, if applicable) of the instrument runway supported by the facility. If threshold elevation is below sea level, precede the elevation by a minus sign.

**35. Threshold Crossing Height (TCH).** Enter (in feet to the nearest hundredth) the value derived from multiplying the GPI distance (block 63) and the tangent of the commissioned angle (block 32) in the TCH space provided. Exception: If the TCH is determined by actual flight inspection measurements (Order 8240.47, Determination of ILS Glidepath Angle, Reference Datum Heights, and Ground Point of Intercept), enter the flight inspection value in the RDH space and disregard the GPI calculation for TCH. Enter an asterisk in block 35 and enter in block 84, "\*\*block 35, RDH, is flight inspection derived." For a VGSI TCH computation, the distance to threshold is from the runway reference point (RRP) to the threshold. VASI RRP is the point half way between the downwind and upwind light boxes. On single light bar systems, PAPI and PVGSI, the RRP is the point on the runway centerline abeam the light bar/box.

**36. ILS/MLS/PAR/VGSI Angle Coincidence.** Enter (to the nearest hundredth) the commissioned angle of each, if installed, for determination of angle coincidence.

**37. Restricted.** Enter an "X" in the appropriate box. If the facility has permanent restrictions assigned, enter an "X" in the "Yes" box and state "see block 84." In block 84, enter "Block 37. (quote restrictions verbatim and date of restriction)."

### **SECTION III. LOCALIZER DATA (ILS, SDF, LDA) OR MLS AZIMUTH**

Complete this section only for an MLS azimuth or localizer-type facility. If reporting a MLS azimuth facility, draw a line through "Localizer Data (ILS, SDF, LDA) or" leaving only "MLS Azimuth."

**38. Localizer/Azimuth Antenna Coordinates.** Enter latitude and longitude as specified in block 19.

**39, 40, 41. Distance to Outer Marker (OM)/Middle Marker (MM)/Inner Marker (IM).** Enter the distance in feet (to the nearest foot) and miles (to the nearest hundredth) from the center of the localizer or azimuth antenna array to the points indicated on runway centerline extended. If the antenna is offset from runway centerline, report distances as measured in a line parallel to runway centerline. If no markers exist, enter the distances to the FAF or checkpoints, using the appropriate azimuths.

**42. Distance Inner Marker (IM) to Threshold (Th).** Enter the distance (to the nearest foot) from the point on runway centerline extended abeam the marker to the displaced threshold or threshold.

**43. Distance to Threshold (Th).** Enter the distance (to the nearest foot) measured along the runway centerline from a point abeam the localizer or azimuth antenna to the displaced threshold or threshold.

**44. Distance (Dist) to Stop End.** Enter the distance (to the nearest foot) measured along the runway centerline from a point abeam the localizer or azimuth antenna to the stop end of the runway. An offset antenna inside the stop end, toward the threshold, will require the use of a minus sign preceding the distance value (e.g., offset stop end, -76 feet).

**45. Usable Distance.** Enter the maximum distance (to the nearest mile) at which coverage is checked at the maximum authorized altitude (MAA) (to the nearest foot) and the minimum reception altitude (MRA) (to the nearest foot). If the localizer or MLS azimuth has expanded service volume, enter "ESV" in the top right corner of the block and enter in block 84 the authorized "ESV" (see block 84e).

**46. Offset Localizer (LOC) True Bearing.** Enter the inbound true bearing of an offset MLS azimuth or localizer (to the nearest hundredth).

**47. Localizer (LOC) Course Width (CW) Monitor.** Enter (to the nearest hundredth) the localizer monitor limits (+ and - 17 percent of the commissioned course sector width shown in block 32 for categories (CAT) I and II; + and - 10 percent for CAT III).

**48. Localizer Course Tailored.** Enter an "X" in the "Yes" box if the localizer course sector width is tailored. A tailored localizer course is designed to have a width of 700 feet at threshold; however, due to mathematical computations, etc., a tailored localizer course may be 700 feet + or - 5 feet at the threshold. Enter the commissioned sector course width (to the nearest foot) at the threshold (Th) in the space provided. Leave blank for MLS azimuth.

**49. Back Course Usable Distance.** Complete this block if the back course is advertised for use (complete the same as block 45). If the back course has an ESV, describe in block 84.

**50. Back Course (BC) True Bearing.** Enter the inbound true bearing of the back course (to the nearest hundredth).

**51. Distance to Centerline (C/L) Runway (Rwy) Abeam Glidepath Antenna (Ant).** Enter the distance (to the nearest foot) measured along the runway centerline from the point abeam the glidepath or elevation antenna to the point abeam the localizer or azimuth antenna.

**52. Direction Left or Right (L or R) and Distance Localizer (LOC) Offset from Runway (Rwy) Centerline (C/L).** If the localizer/azimuth antenna is offset from the runway center, enter the distance it is offset (to the nearest foot). The direction (right or left) is determined by facing the runway at the approach end (e.g., right 275 feet means the center of the localizer/SDF/azimuth antenna array is 275 feet to the right of, and measured perpendicular to, the runway centerline). If the localizer/ azimuth is on runway center, enter "C/L."

**53. Front Course Checkpoint.** Enter a description of and the distance (to the nearest tenth of a mile) to the checkpoint used to check localizer/azimuth course sector width or the FAF description (e.g., grain elevator/4.9 NM; FLOEE INT 15.6 DME; ELAIN INT/OM).

**54. Back Course Checkpoint.** Enter a description of and the distance (to the nearest tenth of a mile) to the checkpoint used to check localizer back course sector width (e.g., railroad and road/5.6 NM; GLH 5.9 DME). Leave blank when back course is not used.

#### **SECTION IV. GLIDEPATH DATA (ILS, PAR, VGSI) OR MLS ELEVATION**

Complete this section only if the facility is an MLS elevation, ILS glide slope, PAR, or visual glide slope indicator. If reporting an MLS elevation facility, draw a line through "Glidepath Data (ILS, PAR, VGSI) or," leaving only "MLS Elevation."

**55. Glide Slope/Elevation Antenna Coordinates.** Enter latitude and longitude as specified in block 19.

**56, 57, 58. Distance to Outer Marker (OM)/Middle Marker (MM)/Inner Marker (IM).** Enter the distance (to the nearest foot) and miles (to the nearest hundredth) measured from a point on the runway centerline abeam the glide slope or elevation antenna to the point on runway centerline extended abeam the applicable marker or fix. If a fix is used in lieu of an outer marker, delete the "OM" and enter "FAF" (final approach fix) or "CKPT" (checkpoint) in block 56; if the fix is not described in block 53, describe the fix in block 84.

NOTE: Distances entered in blocks 56, 57, and 58 will be used to compute tape and earth curvature entries for blocks 65, 66, and 67, respectively.

**59. Distance to Point (Pt) "C."** Complete this entry for ILS and MLS only. Report both feet and miles to the nearest hundredth. Compute point "C" as follows:

$$\frac{100 + (\text{threshold elev} - \text{elev used to compute GPI in block 63})}{\tan \text{ of commissioned angle}}$$

Example: Angle 3.00; threshold elevation = 855; runway elevation abeam glide slope = 850. Then  $[100 + (855 - 850)] = \frac{105}{\tan 3.00} = 2003.52$

**60. Distance to Threshold (Th).** For an ILS glide slope or MLS elevation, enter the distance (to the nearest foot and hundredth of a mile) measured along the runway centerline from a point abeam the glide slope/elevation antenna to the runway displaced threshold or threshold. For visual glide slope indicator systems, enter the distance from the RRP to the runway displaced threshold or threshold. For localizer/ azimuth antennas which are offset from runway centerline extended, additional procedural data is required. This procedural data shall be the distance from a point abeam the glide slope/elevation antenna (pseudo glide slope) to a point abeam the threshold (pseudo threshold) on the commissioned final approach course. To enter this additional procedural data, enter an asterisk in block 60; and in block 84, enter "\*\*Procedural data: Distance pseudo G/P to pseudo AER = 1002'." Also, enter the latitude and longitude of the pseudo glidepath/elevation and pseudo threshold (e.g., pseudo G/P N41-09'-31.01" W073-07'-46.14," pseudo AER N41-09'-24.28" W073-07'-55.74").

**61. Runway (Rwy) Elevation (Elev) Abeam Glide Slope (GS) Antenna.** Enter the elevation (to the nearest tenth of a foot, if available) of the runway C/L abeam the ILS glide slope or MLS elevation antenna. For PAR facilities, leave blank. For VGSI installation, enter the runway C/L elevation at the RRP. Enter the corresponding coordinates in block 84.

**62. Touchdown Zone Elevation (TDZE) (MSL).** Enter the elevation (to the nearest foot, if available) of the highest point of the first 3,000 feet of runway surface measured from the displaced threshold or threshold. Precede the MSL altitude with a minus sign if the TDZE elevation is below sea level.

**63. Distance Threshold to Ground Point of Intercept (GPI).** Enter the distance (to the nearest hundredth of a foot) from the displaced threshold or threshold to the GPI and the distance from the displaced threshold or threshold to the runway point of intercept (RPI) (e.g., ILS GPI 788.00, RPI 680.00; PAR GPI 1141.75; VGSI GPI 758.00, RRP (runway reference point) 660.00). To calculate the GPI distance, determine the height of the elevation/glidepath emanation point. This will be one of the following: elevation of the glide slope antenna site (block 16); elevation of the midpoint of the waveguide glide slope antenna mast (block 16); elevation of the MLS antenna phase center (block 16); the runway elevation abeam the glide slope antenna (block 61); or a flight inspection derived value (block 84). Enter in blocks 71 and 84 the elevation used for GPI computations. From the preceding elevation selected, subtract the displaced threshold elevation or threshold elevation (block 34).

NOTE: If the selected elevation is lower than the threshold elevation, the result is negative and vice versa.

Divide the result by the tangent of the commissioned angle (block 36). Algebraically add the result to the "distance to Th" in feet (block 60). The result is the GPI entry for this block. For a VGSI GPI computation, the distance to the threshold is from the RRP (block 60). To compute RPI, use FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), figure 129 or 129A. Substitute the elevation/glidepath emanation height used to compute GPI for the antenna elevation or runway crown elevation as shown in the figures.

**64. Direction Left or Right (L or R) and Distance From Antenna to Runway (Rwy) Centerline (C/L).** Complete this block for glide slope, MLS elevation, and PAR only. Looking from threshold down the runway, indicate if the ILS glide slope, MLS elevation, or PAR antenna is left or right of runway centerline and enter the precise perpendicular distance to runway centerline (to the nearest foot).

**65, 66, 67. Altitude Over Outer Marker (OM) or Checkpoint (CK PT)/Middle Marker (MM)/Inner Marker (IM).** Complete these fields for glide slope and MLS elevation facilities. Enter the tapeline altitude, earth's curvature value, and altitude (all to the nearest hundredth) over the points indicated, based on the commissioned glidepath angle or MLS elevation angle.

**a. Tapeline.** To calculate tapeline, multiply the tangent of commissioned glidepath angle or MLS elevation angle by the distance in feet from commissioned final approach course abeam the glide slope/elevation antenna to the appropriate marker or FAF on the same final approach course.

**b. Earth Curvature (EC).** To calculate EC, use distance in nautical miles from commissioned final approach course abeam glidepath/elevation antenna to appropriate marker or FAF, squared, multiplied by .883.

**c. MSL.** To calculate MSL, add tapeline, earth curvature, and the elevation used to compute the GPI in block 63.

**68, 69. Distance (Dist) Outer Marker (OM)/Middle Marker (MM) to Threshold (Th).** Enter the distance (to the nearest foot) from the point on runway centerline extended abeam the marker or FAF to the displaced threshold or threshold.

**70. Glidepath/Elevation Monitor.** Enter (to the nearest hundredth) the glidepath/ elevation monitor alarm points based on the commissioned angle and category, in accordance with Order 8200.1A, paragraph 217.5. For MLS, draw a line through glidepath and complete with maximum and minimum allowable angles (e.g., angle (high) 3.1; angle (low) 2.9).

**71. Elevation used to commission Glide Slope.** Enter the elevation (to nearest tenth of a foot, if available) that was used to commission the glide slope (see block 63).

**72, 73. Type of Approach Lighting/Type of Runway Lighting.** Enter the type of approach lighting available and the type of runway lighting available for the runway number in block 24.

#### **SECTION V. VOR, VOR/DME, VORTAC, TACAN, DME**

Complete this section for VOR, VOR/DME, VORTAC, TACAN, or DME facilities only.

**74. Reference Radial/Checkpoint Description.** Enter the reference radial azimuth (to the nearest whole degree). Enter checkpoint azimuth (to the nearest tenth of a degree), the distance (to the nearest tenth of a mile), MSL altitude used to establish alignment over the checkpoint, and a description of checkpoint (e.g., reference radial 270°, checkpoint 270.1°/14.3 NM/2500'/bridge over highway). This information should be available from the commissioning flight inspection report. For AFIS reference radial, enter radial azimuth in whole degrees, the start and stop distances from the facility in miles, and the MSL altitude used (e.g., AFIS reference radial: 270°/15-25 NM/7500').

**75. Theodolite Position.** Enter the location of the theodolite in reference to the antenna when a theodolite is used to check the facility; if not required, leave blank.

**76. Ground Receiver Checkpoints.** Enter the airport name, radial, distance, and description of the checkpoints located on airports used to groundcheck airborne receivers.

**77. Theodolite Reference Points.** In normal circumstances, this block is not used and may be left blank. If needed, enter the precise azimuth and description of reference points used to visually align the theodolite.

**78. Airborne Receiver Checkpoints.** For each airborne receiver checkpoint, enter the radial, distance, altitude, and description of the airborne receiver checkpoint; if the checkpoint is on an airport, enter the airport names in the "Name" space.

#### **SECTION VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF-Df, UHF-Df)**

Complete blocks 79, 80, 81, and 82 for radar facilities only.

**79. Type Secondary.** Enter the equipment type of the secondary radar and serial number, if needed.

**80. Moving Target Indicator (MTI) Blind Speed.** Enter the blind speed.

**81. Video Mapping.** Enter an "X" in the appropriate box.

**82. Antenna Tilt.** Enter antenna tilt in hundredths of a degree in the appropriate space. A variable tilt antenna can be remotely controlled.

**83. Nonprecision Approaches.** Enter airport name and runway served by the facility.

**84. Remarks.** If there is insufficient space in any block, complete the entry in this block and reference the block number. If more space is required for remarks, attach another FAA Form 8240-22 and use block 84, "Remarks" only. Label the pages as "Page 1 of 2," "Page 2 of 2," etc. This space will also be used to enter any other pertinent data for which no space has been provided (e.g., displaced threshold coordinates (DISPL-AER)).

**a. PAR.** Enter the latitude, longitude, and elevation of the stop end (SER) of the runway centerline; the latitude and longitude of the approach end runway (AER) threshold centerline; latitude and longitude of displaced threshold (DISPL-AER); and the latitude and longitude of ground point of intercept (GPI).

**b. Azimuth-Type Facility, MLS or ILS.** Enter the latitude and longitude of the runway abeam the glide slope/elevation antenna phase center; the latitude and longitude and elevations of marker beacons, DME, and compass locators; the location identifier and frequency of compass locators; the latitude, longitude, and elevation of the SER; the latitude and longitude of the AER; and the latitude and longitude of DISPL-AER. For an offset localizer or MLS azimuth, enter the distance (in feet) from the AER that the approach course azimuth crosses runway centerline. Enter the area of the designed MLS clearance coverage of the antenna. If a localizer has dual frequencies, enter a remark to so indicate. Enter elevation used to compute GPI. If minor axis width of a marker is not optimum, enter actual marker width required and reason for special size.

**c. Visual Glide Slope Indicator Systems.**

**(1) VASI.** Enter the distance from threshold to each row of light boxes; the elevation of the runway crown abeam each row of light boxes; the aiming angle of each row of light boxes; the latitude, longitude, and elevation of SER and RRP; the latitude and longitude of the AER; and the latitude and longitude of DISPL-AER.

**(2) PAPI and PVGSI.** Enter the elevation of the runway crown abeam the light bar, latitude, longitude, and elevation of the SER, and the latitude and longitude of AER, RRP, and DISPL-AER.

**d. VOT.** Describe the reference point and any restrictions to VOT use. For area VOT's, list each airport served, whether it is to be used in the air or on the ground, and any restrictions that may exist (e.g., altitude restrictions, etc.).

**e. Expanded Service Volume.** Describe all authorized expanded service volumes by component, azimuth, distance, and MAA/MRA altitudes.

**f. Standard Instrument Approach Procedure (SIAP).** List all SIAP's that each facility supports. Include the airport name and state; SIAP description; and the amendment number if the SIAP is public, private, or military (e.g., Will Rogers World, OK, NDB rwy 35R, amdt 1, public). If an NDB supports an ILS or MLS procedure, identify the NDB's use (e.g., NDB used as a compass locator at outer marker (LOM) for "RGR" ILS approach, runway 35R).



**g. NOTAM'S.** Record all existing facility NOTAM's verbatim with date NOTAM was given to issuing agency. When a NOTAM is issued, changed, or canceled, notify AVN-210 using the data sheet transmittal option or by sending a new FAA Form 8240.22 to AVN-210. A history log of all facility NOTAM's may be retained by the FIO's.

**h. Region.** Enter the 3-letter region designator of the FAA region in which the facility is located. For USAF owned facilities, also enter the USAF communication division identifier (e.g., "ACD," "TCD").

**i. FIO.** Enter the 3-letter designator of the flight inspection office having primary responsibility for inspection of the facility.

**j. Facility Identification (Ident) and Facility Type.** Same as blocks 10 and 8.

**k. Date Prepared.** Enter month, day, and year that facility data form was prepared.

**l. Typed Name and Signature.** Enter the name and the signature of the person who approved the data sheet for use (if applicable).

**m. ILS/MLS Equipment Type and Antenna Type Codes.**

LOCALIZER - ANTENNA TYPE

Standard 8 Loop	SL	
V-Ring 15 Element	V4	
V-Ring 14 Element	V5	
Wave Guide	WG	
Traveling Wave	TW	
LDA	LD	
Twin T or "T" Type	TT	
Log Periodic	LP	
Capture Effect	CE	
Parabolic	PB	
N.E.R.A	NE	
4 Element Dipole	4D	
6 Element Dipole	6D	
Other	OT	(Specify in Remarks)

LOCALIZER/AZIMUTH EQUIPMENT TYPE

Standard	ST	(Other than solid state equipment)
AIL	AI	(Solid State equipment)
Aviation Systems, Inc.	AS	
Texas Instrument	TI	(Solid State equipment)
Wilcox	WL	(Solid State equipment)
Bendix	BX	
Phillips	PL	
Thompson	TH	
Lorenz	LZ	
Hazeltine	HZ	
Other	OT	(Specify in Remarks)

GLIDEPATH - ANTENNA TYPE

Capture Effect	CE	
Sideband Reference	SBR	
Modified Sideband Reference	MR	
Null Reference	NR	
Wave Guide	WG	
N.E.R.A.	NE	(Norwegian-made antenna used with WL equipment)
Endfire Standard (105)	ED	
Endfire Short (106)	EH	
Other	OT	(Specify in Remarks)

GLIDEPATH/ELEVATION EQUIPMENT TYPE

Standard	ST	(Other than Solid State equipment)
AIL	AI	
Aviation Systems, Inc.	AS	
Texas Instrument	TI	
Wilcox	WL	
Bendix	BX	
Thompson	TH	
Lorenz	LZ	
Hazeltine	HZ	
Other	OT	(Specify in Remarks)

MICROWAVE LANDING SYSTEM (MLS) ANTENNA OPTIONS

TYPE	AZIMUTH GUIDANCE		ELEVATION GUIDANCE	
	BEAM WIDTH	SCAN ANGLE	BEAM WIDTH	SCAN ANGLE
Type I	2°	±40°	1.5°	0.9° to 15°
Type II	2°	±40°	1°	0.9° to 15°
Type III	1°	±40°	1.5°	0.9° to 15°
Type IV	1°	±40°	1°	0.9° to 15°
Type V	1°	±10°	1°	0.9° to 15°
Type VI	1°	±60°	1°	0.9° to 15°
Other (Specify in Remarks)				



# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 1. FAA FORM 8240-22**

PAGE 1 of 2 PAGES

FACILITY DATA													
<b>I. AIRPORT / FACILITY</b>													
1. LOCATION			2. ICAO IDENT		3. MAG VAR / YR MAG VAR: EPOCH YR:		4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth)						
5. AIRPORT / FACILITY NAME			6. OWNER		7. FIELD ELEVATION (MSL)		LATITUDE: LONGITUDE:						
<b>II. GENERAL</b>													
8. TYPE FACILITY		9. FREQ / CHANNEL		10. IDENTIFICATION		11. CLASS / CATEGORY		12. COMMON SYSTEM <input type="checkbox"/> YES <input type="checkbox"/> NO					
14. EQUIPMENT TYPE		15. TYPE ANTENNA		16. ANTENNA ELEV. - MSL		17. ANTENNA HEIGHT-FT		18. CONTROL STATION AND FREQUENCY					
19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: LONGITUDE:				20. PRIMARY POWER <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE		21. STANDBY POWER <table border="1"><tr><td><input type="checkbox"/> COMMERCIAL</td></tr><tr><td><input type="checkbox"/> ENGINE</td></tr><tr><td><input type="checkbox"/> BATTERY</td></tr><tr><td><input type="checkbox"/> NONE</td></tr></table>		<input type="checkbox"/> COMMERCIAL	<input type="checkbox"/> ENGINE	<input type="checkbox"/> BATTERY	<input type="checkbox"/> NONE	22. STANDBY EQUIP. <input type="checkbox"/> YES <input type="checkbox"/> NO	
<input type="checkbox"/> COMMERCIAL													
<input type="checkbox"/> ENGINE													
<input type="checkbox"/> BATTERY													
<input type="checkbox"/> NONE													
23. MONITOR <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> SINGLE <input type="checkbox"/> DUAL													
24. RUNWAY NUMBER		25. RUNWAY TRUE		26. MAG VARIATION / YEAR MAG VAR: EPOCH YR:		27. VOICE		28. AFIS RADIAL					
29. POWER OUTPUT													
30. RUNWAY DIMENSIONS LENGTH: FT WIDTH: FT LANDING LENGTH: FT				31. DISPLACED TH <input type="checkbox"/> YES <input type="checkbox"/> NO DISPLACED: FT		32. COMMISSIONED WIDTH: DEG ANGLE: DEG		33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: DISTANCE: ALTITUDE:					
34. THRESHOLD ELEV		35. TCH TCH: FT AGL RDH: FT AGL		36. ILS/MLS / PAR / VGSi ANGLE COINCIDENCE ILS/MLS (Degrees) PAR (Degrees) VGSi (Degrees)				37. RESTRICTED <input type="checkbox"/> YES <input type="checkbox"/> NO					
<b>III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH</b>													
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: LONGITUDE:				39. DISTANCE TO OM (NM): (FT):		40. DISTANCE TO MM (NM): (FT):		41. DISTANCE TO IM (FT) (NM): (FT):					
42. DISTANCE IM TO TH (FT)		43. DISTANCE TO TH		44. DIST TO STOP END		45. USABLE DISTANCE NM AT FT (MSL / MAA) NM AT FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING					
47. LOC CW MONITOR WIDE: NARROW:		48. LOCALIZER COURSE TAILORED <input type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT):		49. BACK COURSE USABLE DISTANCE NM AT FT (MSL / MAA) NM AT FT (MSL / MRA)		50. BC TRUE BEARING		51. DISTANCE TO C/L RWY ABEAM GLIDE PATH ANT-FT					
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY C/L				53. FRONT COURSE CHECK POINT				54. BACK COURSE CHECK POINT					
<b>IV. GLIDE PATH DATA (ILS, PAR, VGSi) or MLS ELEVATION</b>													
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: LONGITUDE:				56. DISTANCE TO OM (NM): (FT):		57. DISTANCE TO MM (NM): (FT):		58. DISTANCE TO IM (NM): (FT):					
59. DISTANCE TO PT "C" (NM): (FT):		60. DISTANCE TO TH (NM): (FT):		61. RWY ELEV ABEAM GS ANTENNA		62. TDZE (MSL)							
63. DISTANCE - THRESHOLD TO GPI (FT)				64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY C/L		65. ALTITUDE OVER OM OR CK PT. (FT)		66. ALTITUDE OVER MM (FT)					
67. ALTITUDE OVER IM (FT)		68. DIST OM - TH (FT)		69. DIST MM - TH (FT)		70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): ANGLE (Low):							
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT		72. TYPE OF APPROACH LIGHTING		73. TYPE OF RUNWAY LIGHTING									

FAA FORM 8240 - 22 (4/96) (FORMFLOW)

**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 1. FAA FORM 8240-22, CONTINUED**

PAGE 2 of 2 PAGES

<b>V. VOR, VOR / DME, VORTAC, TACAN, DME</b>					
74. REFERENCE RADIAL		AZIMUTH / CHECK POINT DESCRIPTION		75. THEODOLITE POSITION	
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION		BEARING	DESCRIPTION
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
<b>VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)</b>					
79. TYPE SECONDARY	80. MTI BLIND SPEED		81. VIDEO MAPPING <input type="checkbox"/> YES <input type="checkbox"/> NO		82. ANTENNA TILT (Degrees) FIXED: VAR:
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
84. REMARKS (include all facility or airspace restrictions)					
REGION:		FIO:		FACILITY IDENT:	
DATE PREPARED:		TYPED NAME:		SIGNATURE:	

FAA FORM 8240 - 22 (4/96) (FORMFLOW)

# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 2. SAMPLE FAA FORM 8240-22, VORTAC**

FACILITY DATA					
I. AIRPORT / FACILITY					
1. LOCATION <b>PUEBLO, CO</b>		2. ICAO IDENT	3. MAG VAR / YR MAG VAR: EPOCH YR:	4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth) LATITUDE: _____ LONGITUDE: _____	
5. AIRPORT / FACILITY NAME <b>PUEBLO</b>		6. OWNER <b>FAA</b>	7. FIELD ELEVATION (MSL)		
II. GENERAL					
8. TYPE FACILITY <b>VORTAC</b>	9. FREQ / CHANNEL <b>116.7/114X</b>	10. IDENTIFICATION <b>PUB</b>	11. CLASS / CATEGORY <b>H</b>	12. COMMON SYSTEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. COMMISSIONED DATE <b>VOR 8/8/58 TAC 4/5/60</b>
14. EQUIPMENT TYPE <b>VOR 2ND GEN TAC GRN-9B</b>	15. TYPE ANTENNA <b>VOR TUO-1 TAC RTA-2</b>	16. ANTENNA ELEV. - MSL <b>VOR 4760.0 TAC 4760.0</b>	17. ANTENNA HEIGHT-FT	18. CONTROL STATION AND FREQUENCY <b>DEN FSS</b>	
19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: <b>N38-17-39.30</b> LONGITUDE: <b>W104-25-44-10</b>		20. PRIMARY POWER <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE	21. STANDBY POWER <input type="checkbox"/> COMMERCIAL <input checked="" type="checkbox"/> ENGINE <input type="checkbox"/> BATTERY <input type="checkbox"/> NONE	22. STANDBY EQUIP. <b>TAC VOR</b> <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO	23. MONITOR <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> SINGLE <input checked="" type="checkbox"/> DUAL
24. RUNWAY NUMBER	25. RUNWAY TRUE	26. MAG VARIATION / YEAR MAG VAR: <b>E13</b> EPOCH YR: <b>1965</b>	27. VOICE <b>NONE</b>	28. AFIS RADIAL <b>64</b>	29. POWER OUTPUT <b>VOR 125 W TAC 5 KW</b>
30. RUNWAY DIMENSIONS LENGTH: _____ FT WIDTH: _____ FT LANDING LENGTH: _____ FT		31. DISPLACED TH <input type="checkbox"/> YES <input type="checkbox"/> NO DISPLACED: _____ FT	32. COMMISSIONED WIDTH: _____ DEG ANGLE: _____ DEG	33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: _____ DISTANCE: _____ ALTITUDE: _____	
34. THRESHOLD ELEV	35. TCH TCH: _____ FT AGL RDH: _____ FT AGL	36. ILS/MLS / PAR / VGSI ANGLE COINCIDENCE ILS/MLS (Degrees) _____ PAR (Degrees) _____ VGSI (Degrees) _____			37. RESTRICTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH					
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: _____ LONGITUDE: _____		39. DISTANCE TO OM (NM): _____ (FT): _____	40. DISTANCE TO MM (NM): _____ (FT): _____	41. DISTANCE TO IM (FT) (NM): _____ (FT): _____	42. DISTANCE IM TO TH (FT)
43. DISTANCE TO TH	44. DIST TO STOP END	45. USABLE DISTANCE NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING	47. LOC CW MONITOR WIDE: _____ NARROW: _____
48. LOCALIZER COURSE TAILORED <input type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT): _____		49. BACK COURSE USABLE DISTANCE NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		50. BC TRUE BEARING	51. DISTANCE TO C/L RWY ABEAM GLIDE PATH ANT-FT
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY C/L		53. FRONT COURSE CHECK POINT		54. BACK COURSE CHECK POINT	
IV. GLIDE PATH DATA (ILS, PAR, VGSI) or MLS ELEVATION					
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: _____ LONGITUDE: _____		56. DISTANCE TO OM (NM): _____ (FT): _____	57. DISTANCE TO MM (NM): _____ (FT): _____	58. DISTANCE TO IM (NM): _____ (FT): _____	59. DISTANCE TO PT "C" (NM): _____ (FT): _____
60. DISTANCE TO TH (NM): _____ (FT): _____	61. RWY ELEV ABEAM GS ANTENNA	62. TDZE (MSL)	63. DISTANCE - THRESHOLD TO GPI (FT) ILS _____ PAR _____ VGSI _____ GPI: _____ RPI: _____ GPI: _____ RRP: _____		
64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY C/L		65. ALTITUDE OVER OM OR CK PT. (FT) TAPELINE _____ EC _____ MSL _____		66. ALTITUDE OVER MM (FT) TAPELINE _____ EC _____ MSL _____	
67. ALTITUDE OVER IM (FT) TAPELINE _____ MSL _____		68. DIST OM - TH (FT)	69. DIST MM - TH (FT)	70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): _____ ANGLE (Low): _____	
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT		72. TYPE OF APPROACH LIGHTING:		73. TYPE OF RUNWAY LIGHTING:	

FAA FORM 8240 - 22 (4/96) (FORMFLOW)

**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 2. SAMPLE FAA FORM 8240-22, VORTAC (Continued)**

V. VOR, VOR / DME, VORTAC, TACAN, DME					
74. REFERENCE RADIAL <b>267</b>			AZIMUTH / CHECK POINT DESCRIPTION		
<b>267.5/19.5NM/7300' / INTBR OVER N STREAM AFIS: 64/20-15NM//12500'</b>			75. THEODOLITE POSITION		
			<b>N/A</b>		
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION	BEARING	DESCRIPTION	
<b>249</b>	<b>4.0</b>	<b>CIR ON PAD S. SIDE AER 08L PUEBLO MEMORIAL, CO</b>			
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
	<b>294</b>	<b>7.8</b>	<b>7300</b>	<b>OVER KOAA TOWER 5.4 NM NW AIRPORT</b>	
VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)					
79. TYPE SECONDARY	80. MTI BLIND SPEED		81. VIDEO MAPPING		82. ANTENNA TILT (Degrees)
			<input type="checkbox"/> YES <input type="checkbox"/> NO		FIXED: VAR:
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
84. REMARKS (Include all facility or airspace restrictions)					
<b>ESV VOR AND TAC: 351R/59 NM/9400' (2/3/89)</b>  <b>SIAP: PUEBLO MEMORIAL, CO VOR OR TAC RWY 26R AMDT 26 PUBL</b>					
REGION: <b>ANM</b>		FIO: <b>SAC</b>		FACILITY IDENT: <b>PUB</b>	
				FACILITY TYPE: <b>VORTAC</b>	
DATE PREPARED:		TYPED NAME:		SIGNATURE:	

# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 3. SAMPLE FAA FORM 8240-22, ILS/DME**

FACILITY DATA									
I. AIRPORT / FACILITY									
1. LOCATION <b>OKLAHOMA CITY, OK</b>				2. ICAO IDENT <b>KOKC</b>		3. MAG VAR / YR MAG VAR: <b>E7</b> EPOCH YR: <b>1985</b>		4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth) LATITUDE: <b>N35-23-34.90</b> LONGITUDE: <b>W097-36-01.50</b>	
5. AIRPORT / FACILITY NAME <b>WILL ROGERS WORLD</b>			6. OWNER <b>FAA</b>		7. FIELD ELEVATION (MSL) <b>1295</b>				
II. GENERAL									
8. TYPE FACILITY <b>ILS/DME</b>		9. FREQ / CHANNEL <b>LOC 110.90/46X GP 330.80</b>		10. IDENTIFICATION <b>RGR</b>		11. CLASS / CATEGORY <b>2</b>		12. COMMON SYSTEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
14. EQUIPMENT TYPE <b>LOC WL GP WL</b>		15. TYPE ANTENNA <b>LOC LP GP NR</b>		16. ANTENNA ELEV. - MSL <b>LOC 1287.0 GP 1281.0</b>		17. ANTENNA HEIGHT-FT		18. CONTROL STATION AND FREQUENCY <b>WILL ROGERS TOWER 118.3/257.8</b>	
19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: _____ LONGITUDE: _____				20. PRIMARY POWER <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE		21. STANDBY POWER <input type="checkbox"/> COMMERCIAL <input checked="" type="checkbox"/> BATTERY <input type="checkbox"/> NONE		22. STANDBY EQUIP. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
24. RUNWAY NUMBER <b>35R</b>		25. RUNWAY TRUE <b>359.96</b>		26. MAG VARIATION / YEAR MAG VAR: <b>E7</b> EPOCH YR: <b>1985</b>		27. VOICE <b>NONE</b>		28. AFIS RADIAL	
30. RUNWAY DIMENSIONS LENGTH: <b>9802</b> FT WIDTH: <b>150</b> FT LANDING LENGTH: <b>9802</b> FT				31. DISPLACED TH <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO DISPLACED: _____ FT		32. COMMISSIONED WIDTH: <b>3.65</b> DEG ANGLE: <b>2.90</b> DEG		33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: _____ DISTANCE: _____ ALTITUDE: _____	
34. THRESHOLD ELEV <b>1282.8</b>		35. TCH TCH: _____ FT AGL RDH: <b>58.0</b> FT AGL		36. ILS/MLS / PAR / VGS I ANGLE COINCIDENCE ILS/MLS (Degrees) <b>2.90</b> PAR (Degrees) _____ VGS I (Degrees) _____		37. RESTRICTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH									
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: <b>N35-24-29.92</b> LONGITUDE: <b>W097-35-19.06</b>				39. DISTANCE TO OM (NM): <b>6.79</b> (FT): <b>41245</b>		40. DISTANCE TO MM (NM): <b>2.30</b> (FT): <b>13966</b>		41. DISTANCE TO IM (FT) (NM): <b>1.98</b> (FT): <b>12004</b>	
43. DISTANCE TO TH <b>10971</b>		44. DIST TO STOP END <b>1169</b>		45. USABLE DISTANCE <b>18</b> NM AT <b>5787</b> FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING		47. LOC CW MONITOR WIDE: <b>4.27</b> NARROW: <b>3.03</b>	
48. LOCALIZER COURSE TAILORED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT): <b>699.14</b>				49. BACK COURSE USABLE DISTANCE <b>N/A</b> NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		50. BC TRUE BEARING <b>179.96</b>		51. DISTANCE TO CL RWY ABEAM GLIDE PATH ANT-FT <b>9883</b>	
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY CL <b>C/L</b>				53. FRONT COURSE CHECK POINT <b>LOM 6.8 DME</b>		54. BACK COURSE CHECK POINT <b>N/A</b>			
IV. GLIDE PATH DATA (ILS, PAR, VGS I) or MLS ELEVATION									
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: <b>N35-22-52.18</b> LONGITUDE: <b>W097-35-14.15</b>				56. DISTANCE TO OM (NM): <b>5.16</b> (FT): <b>31362</b>		57. DISTANCE TO MM (NM): <b>.67</b> (FT): <b>4083</b>		58. DISTANCE TO IM (NM): <b>.35</b> (FT): <b>2121</b>	
60. DISTANCE TO TH (NM): <b>.18</b> (FT): <b>1088</b>		61. RWY ELEV ABEAM GS ANTENNA <b>1286.1</b>		62. TDZE (MSL) <b>1294</b>		63. DISTANCE - THRESHOLD TO GPI (FT) ILS GPI: <b>1153.14</b> RPI: <b>1088.00</b> PAR GPI: _____ VGS I GPI: _____ RRP: _____			
64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY CL <b>RIGHT 400</b>				65. ALTITUDE OVER OM OR CK PT. (FT) TAPELINE <b>1588.73</b> EC <b>23.52</b> MSL <b>2898.35</b>		66. ALTITUDE OVER MM (FT) TAPELINE <b>206.84</b> EC <b>.40</b> MSL <b>1493.33</b>			
67. ALTITUDE OVER IM (FT) TAPELINE <b>107.45</b> MSL <b>1393.55</b>				68. DIST OM - TH (FT) <b>30274</b>		69. DIST MM - TH (FT) <b>2995</b>		70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): <b>3.12</b> ANGLE (Low): <b>2.68</b>	
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT <b>1286.1</b>				72. TYPE OF APPROACH LIGHTING: <b>ALSF-2</b>			73. TYPE OF RUNWAY LIGHTING: <b>HIRL/TDZ/CL</b>		

FAA FORM 8240 - 22 (4/96) (FORMFLOW)



**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 3. SAMPLE FAA FORM 8240-22, ILS/DME (Continued)**

<b>V. VOR, VOR / DME, VORTAC, TACAN, DME</b>					
74. REFERENCE RADIAL		AZIMUTH / CHECK POINT DESCRIPTION		75. THEODOLITE POSITION	
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION		BEARING	DESCRIPTION
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
<b>VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)</b>					
79. TYPE SECONDARY	80. MTI BLIND SPEED	81. VIDEO MAPPING <input type="checkbox"/> YES <input type="checkbox"/> NO		82. ANTENNA TILT (Degrees) FIXED: VAR:	
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
84. REMARKS (Include all facility or airspace restrictions)					
<b>COMMISSIONED IAW 8240.47/REF ELEV = 1286'    BLOCK 61 USED TO COMPUTE GPI, RPI, POINT C.</b>  <b>OM   N35-17-42.00   W097-35-18.10   ELEV 1198.0'   GALLY LOM 350 KHZ</b>  <b>MM   N35-22-11.80   W097-35-18.90   ELEV 1263.0'</b>  <b>IM   N35-22-31.20   W097-35-19.00   ELEV 1271.3'</b>  <b>AER   N35-22-41.42   W097-35-18.97</b>  <b>SER   N35-24-18.35   W097-35-19.06   ELEV 1286.4'</b>  <b>RUNWAY C/L ABEAM GP ANTENNA   N35-22-52.18   W097-35-18.98</b>  <b>DME   N35-24-30.73   W097-35-21.81   ELEV 1304.0'</b>  <b>LOC/CLR CHECKS AT LCA (2902' MSL)   DUAL FREQUENCY LOCALIZER   AER TO POINT C 820.89'/14NM</b>  <b>SIAP': WILL ROGERS WORLD, OK   ILS RWY 35R AMDT 7   PUBL</b>  <b>WILL ROGERS WORLD, OK   ILS RWY 35R (CAT 2)   AMDT 7   PUBL</b>					
REGION: <div style="text-align: center;"><b>ASW</b></div>		FIO: <div style="text-align: center;"><b>OKC</b></div>		FACILITY IDENT: <div style="text-align: center;"><b>RGR</b></div>	
FACILITY TYPE: <div style="text-align: center;"><b>ILS/DME</b></div>					
DATE PREPARED:		TYPED NAME:		SIGNATURE:	

# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 4. SAMPLE FAA FORM 8240-22, PAR**

FACILITY DATA									
I. AIRPORT / FACILITY									
1. LOCATION <b>PANAMA CITY, FL</b>				2. ICAO IDENT <b>KPAM</b>		3. MAG VAR / YR MAG VAR: <b>E 0</b> EPOCH YR: <b>1985</b>		4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth) LATITUDE: <b>N30-04-11.38</b> LONGITUDE: <b>W085-34-34.29</b>	
5. AIRPORT / FACILITY NAME <b>TYNDALL AFB</b>			6. OWNER <b>USAF</b>		7. FIELD ELEVATION (MSL) <b>18</b>				
II. GENERAL									
8. TYPE FACILITY <b>PAR</b>		9. FREQ / CHANNEL		10. IDENTIFICATION <b>PAM</b>		11. CLASS / CATEGORY		12. COMMON SYSTEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
13. COMMISSIONED DATE <b>5/3/89</b>		14. EQUIPMENT TYPE <b>FPN-62A SN 118</b>		15. TYPE ANTENNA <b>PHASED ARRAY</b>		16. ANTENNA ELEV. - MSL <b>14.0</b>		17. ANTENNA HEIGHT-FT	
18. CONTROL STATION AND FREQUENCY <b>TYNDALL APPROACH CONTROL 119.75/373.0/124.15/294.5</b>				19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: <b>N30-04-08.98</b> LONGITUDE: <b>W085-34-26.81</b>		20. PRIMARY POWER <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE		21. STANDBY POWER <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE <input type="checkbox"/> BATTERY <input type="checkbox"/> NONE	
22. STANDBY EQUIP. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		23. MONITOR <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> SINGLE <input type="checkbox"/> DUAL		24. RUNWAY NUMBER <b>31R</b>		25. RUNWAY TRUE <b>314.48</b>		26. MAG VARIATION / YEAR MAG VAR: EPOCH YR:	
27. VOICE		28. AFIS RADIAL		29. POWER OUTPUT		30. RUNWAY DIMENSIONS LENGTH: <b>1003</b> FT WIDTH: <b>200</b> FT LANDING LENGTH: <b>1003</b> FT		31. DISPLACED TH <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO DISPLACED: FT	
32. COMMISSIONED WIDTH: DEG ANGLE: <b>2.50</b> DEG		33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: DISTANCE: ALTITUDE:		34. THRESHOLD ELEV <b>16.0</b>		35. TCH TCH: <b>49.72</b> FT AGL RDH: FT AGL		36. ILS/MLS / PAR / VGSi ANGLE COINCIDENCE ILS/MLS (Degrees) <b>2.50</b> PAR (Degrees) <b>2.50</b> VGSi (Degrees) <b>PAPI 2.50</b>	
37. RESTRICTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO									
III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH									
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: LONGITUDE:				39. DISTANCE TO OM (NM): (FT):		40. DISTANCE TO MM (NM): (FT):		41. DISTANCE TO IM (FT) (NM): (FT):	
42. DISTANCE IM TO TH (FT)		43. DISTANCE TO TH		44. DIST TO STOP END		45. USABLE DISTANCE NM AT FT (MSL / MAA) NM AT FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING	
47. LOC CW MONITOR WIDE: NARROW:		48. LOCALIZER COURSE TAILORED <input type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT):		49. BACK COURSE USABLE DISTANCE NM AT FT (MSL / MAA) NM AT FT (MSL / MRA)		50. BC TRUE BEARING		51. DISTANCE TO CL RWY ABEAM GLIDE PATH ANT- FT	
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY CL				53. FRONT COURSE CHECK POINT				54. BACK COURSE CHECK POINT	
IV. GLIDE PATH DATA (ILS, PAR, VGSi) or MLS ELEVATION									
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: LONGITUDE:				56. DISTANCE TO OM (NM): (FT):		57. DISTANCE TO MM (NM): (FT):		58. DISTANCE TO IM (NM): (FT):	
59. DISTANCE TO PT "C" (NM): (FT):		60. DISTANCE TO TH (NM): (FT):		61. RWY ELEV ABEAM GS ANTENNA		62. TDZE (MSL) <b>16.0</b>		63. DISTANCE - THRESHOLD TO GPI (FT) ILS PAR VGSi GPI: <b>1138.78</b> GPI: RRP:	
64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY CL <b>LEFT 473</b>				65. ALTITUDE OVER OM OR CK PT. (FT) TAPELINE EC MSL			66. ALTITUDE OVER MM (FT) TAPELINE EC MSL		
67. ALTITUDE OVER IM (FT) TAPELINE MSL		68. DIST OM - TH (FT)		69. DIST MM - TH (FT)		70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): ANGLE (Low):			
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT				72. TYPE OF APPROACH LIGHTING: <b>ALSF-1</b>				73. TYPE OF RUNWAY LIGHTING: <b>HIRL/PAPI</b>	

FAA FORM 8240 - 22 (4/96) (FORMFLOW)

**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 4. SAMPLE FAA FORM 8240-22, PAR (Continued)**

<b>V. VOR, VOR / DME, VORTAC, TACAN, DME</b>					
74. REFERENCE RADIAL			AZIMUTH / CHECK POINT DESCRIPTION		75. THEODOLITE POSITION
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION	BEARING	DESCRIPTION	
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
<b>VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)</b>					
79. TYPE SECONDARY	80. MTI BLIND SPEED <b>OVER 660 KNOTS</b>		81. VIDEO MAPPING <input type="checkbox"/> YES <input type="checkbox"/> NO		82. ANTENNA TILT (Degrees) FIXED: VAR:
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
84. REMARKS (include all facility or airspace restrictions)					
<b>AER   N30-03-38.05   W085-33-42.91</b>  <b>SER   N30-04-47.42   W085-35-04.14   ELEV 15.7'</b>  <b>GPI   N30-03-45.95   W085-33-52.16</b>					
REGION: <b>ASO (TCD)</b>		FIO: <b>ATL</b>		FACILITY IDENT: <b>PAM</b>	
DATE PREPARED:		TYPED NAME:		SIGNATURE:	

# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 5. SAMPLE FAA FORM 8420-22, NDB**

FACILITY DATA						
<b>I. AIRPORT / FACILITY</b>						
1. LOCATION <b>ALEXANDRIA, MN</b>		2. ICAO IDENT	3. MAG VAR / YR MAG VAR: EPOCH YR:	4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth) LATITUDE: _____ LONGITUDE: _____		
5. AIRPORT / FACILITY NAME <b>ANDRI</b>		6. OWNER <b>STATE OF MN</b>	7. FIELD ELEVATION (MSL)			
<b>II. GENERAL</b>						
8. TYPE FACILITY <b>NDB</b>	9. FREQ / CHANNEL <b>281</b>	10. IDENTIFICATION <b>AJW</b>	11. CLASS / CATEGORY <b>MHW</b>	12. COMMON SYSTEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. COMMISSIONED DATE <b>4/6/81</b>	
14. EQUIPMENT TYPE <b>AERO COM</b>	15. TYPE ANTENNA	16. ANTENNA ELEV. - MSL <b>1404.0</b>	17. ANTENNA HEIGHT-FT	18. CONTROL STATION AND FREQUENCY <b>PNM FSS</b>		
19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: <b>N45-47-30.00</b> LONGITUDE: <b>W095-18-19.00</b>		20. PRIMARY POWER <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE	21. STANDBY POWER <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE <input checked="" type="checkbox"/> BATTERY <input type="checkbox"/> NONE	22. STANDBY EQUIP. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	23. MONITOR <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> SINGLE <input type="checkbox"/> DUAL	
24. RUNWAY NUMBER	25. RUNWAY TRUE	26. MAG VARIATION / YEAR MAG VAR: <b>E 5</b> EPOCH YR: <b>1985</b>	27. VOICE <b>NONE</b>	28. AFIS RADIAL	29. POWER OUTPUT <b>25 W</b>	
30. RUNWAY DIMENSIONS LENGTH: _____ FT WIDTH: _____ FT LANDING LENGTH: _____ FT		31. DISPLACED TH <input type="checkbox"/> YES <input type="checkbox"/> NO DISPLACED: _____ FT	32. COMMISSIONED WIDTH: _____ DEG ANGLE: _____ DEG	33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: _____ DISTANCE: _____ ALTITUDE: _____		
34. THRESHOLD ELEV	35. TCH TCH: _____ FT AGL RDH: _____ FT AGL	36. ILS/MLS / PAR / VGSI ANGLE COINCIDENCE ILS/MLS (Degrees) _____ PAR (Degrees) _____ VGSI (Degrees) _____			37. RESTRICTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<b>III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH</b>						
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: _____ LONGITUDE: _____		39. DISTANCE TO OM (NM): _____ (FT): _____	40. DISTANCE TO MM (NM): _____ (FT): _____	41. DISTANCE TO IM (FT) (NM): _____ (FT): _____	42. DISTANCE IM TO TH (FT) (NM): _____ (FT): _____	
43. DISTANCE TO TH	44. DIST TO STOP END	45. USABLE DISTANCE NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING	47. LOC CW MONITOR WIDE: _____ NARROW: _____	
48. LOCALIZER COURSE TAILORED <input type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT): _____		49. BACK COURSE USABLE DISTANCE NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		50. BC TRUE BEARING	51. DISTANCE TO C/L RWY ABEAM GLIDE PATH ANT- FT	
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY C/L		53. FRONT COURSE CHECK POINT		54. BACK COURSE CHECK POINT		
<b>IV. GLIDE PATH DATA (ILS, PAR, VGSI) or MLS ELEVATION</b>						
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: _____ LONGITUDE: _____		56. DISTANCE TO OM (NM): _____ (FT): _____	57. DISTANCE TO MM (NM): _____ (FT): _____	58. DISTANCE TO IM (NM): _____ (FT): _____	59. DISTANCE TO PT "C" (NM): _____ (FT): _____	
60. DISTANCE TO TH (NM): _____ (FT): _____	61. RWY ELEV ABEAM GS ANTENNA	62. TDZE (MSL)	63. DISTANCE - THRESHOLD TO GPI (FT) ILS _____ PAR _____ VGSI _____ GPI: _____ RPI: _____ GPI: _____ RRP: _____			
64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY C/L		65. ALTITUDE OVER OM OR CK PT. (FT) TAPELINE _____ EC _____ MSL _____		66. ALTITUDE OVER MM (FT) TAPELINE _____ EC _____ MSL _____		
67. ALTITUDE OVER IM (FT) TAPELINE _____ MSL _____		68. DIST OM - TH (FT)	69. DIST MM - TH (FT)	70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): _____ ANGLE (Low): _____		
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT		72. TYPE OF APPROACH LIGHTING:		73. TYPE OF RUNWAY LIGHTING:		

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**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 5. SAMPLE FAA FORM 8240-22, NDB (Continued)**

<b>V. VOR, VOR / DME, VORTAC, TACAN, DME</b>					
74. REFERENCE RADIAL			AZIMUTH / CHECK POINT DESCRIPTION		75. THEODOLITE POSITION
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION	BEARING	DESCRIPTION	
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
<b>VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)</b>					
79. TYPE SECONDARY	80. MTI BLIND SPEED	81. VIDEO MAPPING <input type="checkbox"/> YES <input type="checkbox"/> NO		82. ANTENNA TILT (Degrees) FIXED: VAR:	
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
84. REMARKS (Include all facility or airspace restrictions)					
<b>SIAP: CHANDLER FIELD, MN   NDB RWY 31   AMDT 3   PUBL</b>					
REGION: <b>AGL</b>		FIO: <b>BTL</b>		FACILITY IDENT: <b>AJW</b>	
DATE PREPARED:		TYPED NAME:		SIGNATURE:	

# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 6. SAMPLE FAA FORM 8240-22, ASR/SECRA**

FACILITY DATA					
<b>I. AIRPORT / FACILITY</b>					
1. LOCATION <b>PANAMA CITY, FL</b>		2. ICAO IDENT <b>KPAM</b>	3. MAG. VAR. / YR MAG VAR: <b>E 0</b> EPOCH YR: <b>1985</b>	4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth) LATITUDE: <b>N30-04-11.38</b> LONGITUDE: <b>W085-34-34.29</b>	
5. AIRPORT / FACILITY NAME <b>TYNDALL AFB</b>		6. OWNER <b>USAF</b>	7. FIELD ELEVATION (MSL) <b>18</b>		
<b>II. GENERAL</b>					
8. TYPE FACILITY <b>ASR/SECRA</b>	9. FREQ / CHANNEL	10. IDENTIFICATION <b>PAM</b>	11. CLASS / CATEGORY	12. COMMON SYSTEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. COMMISSIONED DATE <b>ASR 8/23/82 SECRA 8/23/82</b>
14. EQUIPMENT TYPE <b>GPN-20 SN 40</b>	15. TYPE ANTENNA	16. ANTENNA ELEV. - MSL <b>7.5</b>	17. ANTENNA HEIGHT-FT	18. CONTROL STATION AND FREQUENCY <b>TYNDALL APPROACH CONTROL 119.75/373.0/124.15/294.5</b>	
19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: <b>N30-04-06.14</b> LONGITUDE: <b>W085-33-35.42</b>		20. PRIMARY POWER <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE	21. STANDBY POWER <input type="checkbox"/> COMMERCIAL <input checked="" type="checkbox"/> ENGINE <input type="checkbox"/> BATTERY <input type="checkbox"/> NONE	22. STANDBY EQUIP. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	23. MONITOR <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> SINGLE <input type="checkbox"/> DUAL
24. RUNWAY NUMBER	25. RUNWAY TRUE	26. MAG VARIATION / YEAR MAG VAR: <b>E 0</b> EPOCH YR: <b>1985</b>	27. VOICE	28. AFIS RADIAL	29. POWER OUTPUT <b>ASR 56 DBM SECRA 300W</b>
30. RUNWAY DIMENSIONS LENGTH:                      FT    WIDTH:                      FT LANDING LENGTH:                      FT		31. DISPLACED TH <input type="checkbox"/> YES <input type="checkbox"/> NO DISPLACED:                      FT	32. COMMISSIONED WIDTH:                      DEG ANGLE:                      DEG	33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: <b>70</b> DISTANCE: <b>54</b> ALTITUDE: <b>23000</b>	
34. THRESHOLD ELEV	35. TCH TCH:                      FT AGL RDH:                      FT AGL	36. ILS/MLS / PAR / VGSI ANGLE COINCIDENCE ILS/MLS (Degrees)                      PAR (Degrees)                      VGSI (Degrees)			37. RESTRICTED <input type="checkbox"/> YES <input type="checkbox"/> NO
<b>III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH</b>					
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: LONGITUDE:		39. DISTANCE TO OM (NM): (FT):	40. DISTANCE TO MM (NM): (FT):	41. DISTANCE TO IM (FT) (NM): (FT):	42. DISTANCE IM TO TH (FT)
43. DISTANCE TO TH	44. DIST TO STOP END	45. USABLE DISTANCE NM AT                      FT (MSL / MAA) NM AT                      FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING	47. LOC CW MONITOR WIDE: NARROW:
48. LOCALIZER COURSE TAILORED <input type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT):		49. BACK COURSE USABLE DISTANCE NM AT                      FT (MSL / MAA) NM AT                      FT (MSL / MRA)		50. BC TRUE BEARING	51. DISTANCE TO C/L RWY ABEAM GLIDE PATH ANT- FT
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY C/L		53. FRONT COURSE CHECK POINT		54. BACK COURSE CHECK POINT	
<b>IV. GLIDE PATH DATA (ILS, PAR, VGSI) or MLS ELEVATION</b>					
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: LONGITUDE:		56. DISTANCE TO OM (NM): (FT):	57. DISTANCE TO MM (NM): (FT):	58. DISTANCE TO IM (NM): (FT):	59. DISTANCE TO PT "C" (NM): (FT):
60. DISTANCE TO TH (NM): (FT):	61. RWY ELEV ABEAM GS ANTENNA	62. TDZE (MSL)	63. DISTANCE - THRESHOLD TO GPI (FT) ILS                      PAR                      VGSI GPI:                      GPI:                      GPI: RPI:                      RRP:		
64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY C/L		65. ALTITUDE OVER OM OR CK PT. (FT) TAPELINE                      EC                      MSL		66. ALTITUDE OVER MM (FT) TAPELINE                      EC                      MSL	
67. ALTITUDE OVER IM (FT) TAPELINE                      MSL		68. DIST OM - TH (FT)	69. DIST MM - TH (FT)	70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): ANGLE (Low):	
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT		72. TYPE OF APPROACH LIGHTING:		73. TYPE OF RUNWAY LIGHTING	

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**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 6. SAMPLE FAA FORM 8240-22, ASR/SECRA (Continued)**

<b>V. VOR, VOR / DME, VORTAC, TACAN, DME</b>					
74. REFERENCE RADIAL			AZIMUTH / CHECK POINT DESCRIPTION		75. THEODOLITE POSITION
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION	BEARING	DESCRIPTION	
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
<b>VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)</b>					
79. TYPE SECONDARY <b>TPX-42 SN 40</b>	80. MTI BLIND SPEED <b>900+</b>	81. VIDEO MAPPING <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		82. ANTENNA TILT (Degrees) FIXED: <b>0.00</b> VAR:	
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
<b>TYNDALL AFB</b>	<b>13L</b>	<b>TYNDALL AFB</b>	<b>31R</b>	<b>TYNDALL AFB</b>	<b>13R</b>
84. REMARKS (Include all facility or airspace restrictions)					
<b>SCOPE LOCATION: TYNDALL AFB RAPCON</b>					
REGION: <b>ASO (TCD)</b>		FIO: <b>ATL</b>		FACILITY IDENT: <b>PAM</b>	
FACILITY TYPE: <b>ASR/SECRA</b>		DATE PREPARED:			
TYPED NAME:		SIGNATURE:			

# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 7. SAMPLE FAA FORM 8240-22, VASI**

FACILITY DATA									
I. AIRPORT / FACILITY									
1. LOCATION <b>SPOKANE, WA</b>				2. ICAO IDENT <b>KSKA</b>		3. MAG VAR / YR MAG VAR: <b>E 19</b> EPOCH YR: <b>1985</b>		4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth) LATITUDE: <b>N47-36-54.59</b>	
5. AIRPORT / FACILITY NAME <b>FAIRCHILD AFB</b>				6. OWNER <b>USAF</b>		7. FIELD ELEVATION (MSL) <b>2462</b>		LONGITUDE: <b>W117-39-17.06</b>	
II. GENERAL									
8. TYPE FACILITY <b>VASI</b>		9. FREQ / CHANNEL		10. IDENTIFICATION <b>SKA</b>		11. CLASS / CATEGORY		12. COMMON SYSTEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
13. COMMISSIONED DATE <b>1974</b> <b>SEE REMARKS</b>		14. EQUIPMENT TYPE <b>VASI-12</b> <b>2 BAR</b>		15. TYPE ANTENNA		16. ANTENNA ELEV. - MSL		17. ANTENNA HEIGHT-FT	
18. CONTROL STATION AND FREQUENCY		19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: _____ LONGITUDE: _____		20. PRIMARY POWER <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE		21. STANDBY POWER <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE <input type="checkbox"/> BATTERY <input type="checkbox"/> NONE		22. STANDBY EQUIP. <input type="checkbox"/> YES <input type="checkbox"/> NO	
23. MONITOR <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> SINGLE <input type="checkbox"/> DUAL		24. RUNWAY NUMBER <b>23</b>		25. RUNWAY TRUE <b>246.75</b>		26. MAG VARIATION / YEAR MAG VAR: _____ EPOCH YR: _____		27. VOICE	
28. AFIS RADIAL		29. POWER OUTPUT		30. RUNWAY DIMENSIONS LENGTH: <b>13901</b> FT WIDTH: <b>300</b> FT LANDING LENGTH: <b>13901</b> FT		31. DISPLACED TH <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO DISPLACED: _____ FT		32. COMMISSIONED WIDTH: _____ DEG ANGLE: <b>2.50</b> DEG	
33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: _____ DISTANCE: _____ ALTITUDE: _____		34. THRESHOLD ELEV <b>2414.5</b>		35. TCH TCH: <b>49.11</b> FT AGL RDH: _____ FT AGL		36. ILS/MLS / PAR / VGSI ANGLE COINCIDENCE ILS/MLS (Degrees) <b>2.50</b> PAR (Degrees) <b>2.50</b> VGSI (Degrees) <b>2.50</b>		37. RESTRICTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH									
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: _____ LONGITUDE: _____				39. DISTANCE TO OM (NM): _____ (FT): _____		40. DISTANCE TO MM (NM): _____ (FT): _____		41. DISTANCE TO IM (FT) (NM): _____ (FT): _____	
42. DISTANCE IM TO TH (FT)		43. DISTANCE TO TH		44. DIST TO STOP END		45. USABLE DISTANCE NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING	
47. LOC CW MONITOR WIDE: _____ NARROW: _____		48. LOCALIZER COURSE TAILORED <input type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT): _____		49. BACK COURSE USABLE DISTANCE NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		50. BC TRUE BEARING		51. DISTANCE TO C/L RWY ABEAM GLIDE PATH ANT. FT	
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY C/L		53. FRONT COURSE CHECK POINT		54. BACK COURSE CHECK POINT					
IV. GLIDE PATH DATA (ILS, PAR, VGSI) or MLS ELEVATION									
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: _____ LONGITUDE: _____				56. DISTANCE TO OM (NM): _____ (FT): _____		57. DISTANCE TO MM (NM): _____ (FT): _____		58. DISTANCE TO IM (NM): _____ (FT): _____	
59. DISTANCE TO PT "C" (NM): _____ (FT): _____		60. DISTANCE TO TH (NM): <b>.17</b> (FT): <b>1063</b>		61. RWY ELEV ABEAM GS ANTENNA <b>RRP</b> <b>2417.2</b>		62. TDZE (MSL) <b>2423</b>		63. DISTANCE - THRESHOLD TO GPI (FT) ILS GPI: _____ RPI: _____ PAR GPI: _____ VGSI GPI: <b>1124.84</b> RRP: <b>1063.00</b>	
64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY C/L		65. ALTITUDE OVER OM OR CK PT. (FT) TAPELINE _____ EC _____ MSL _____		66. ALTITUDE OVER MM (FT) TAPELINE _____ EC _____ MSL _____					
67. ALTITUDE OVER IM (FT) TAPELINE _____ MSL _____		68. DIST OM - TH (FT)		69. DIST MM - TH (FT)		70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): _____ ANGLE (Low): _____			
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT		72. TYPE OF APPROACH LIGHTING: <b>ALSF-1/VASI</b>		73. TYPE OF RUNWAY LIGHTING: <b>HIRL</b>					

FAA FORM 8240 - 22 (4/96) (FORMFLOW)



**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 7. SAMPLE FAA FORM 8240-22, VASI (Continued)**

<b>V. VOR, VOR / DME, VORTAC, TACAN, DME</b>					
74. REFERENCE RADIAL			AZIMUTH / CHECK POINT DESCRIPTION		75. THEODOLITE POSITION
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION		BEARING	DESCRIPTION
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
<b>VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)</b>					
79. TYPE SECONDARY	80. MTI BLIND SPEED	81. VIDEO MAPPING <input type="checkbox"/> YES <input type="checkbox"/> NO		82. ANTENNA TILT (Degrees) FIXED: VAR:	
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
84. REMARKS (Include all facility or airspace restrictions)					
<b>AER   N47-37-21.71   W117-37-43.82</b>  <b>SER   N47-36-27.51   W117-40-50.20   ELEV 2461.9'</b>  <b>RRP   N47-37-17.57   W117-37-58.08</b>  <b>BCE ADVISES SYSTEM INSTALLED IN 1974; COMMISSIONING DATE UNKNOWN.</b>  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <b>DOWNWIND BAR</b>   <b>DISTANCE TO THRESHOLD</b>        775'   <b>AIMING ANGLE</b>                    2.00   <b>RUNWAY CROWN ELEVATION</b>       2416.5' </div> <div style="text-align: center;"> <b>UPWIND BAR</b>      1350'      2.50      2418.2' </div> </div>					
REGION: <b>ANM (SCD)</b>		FIO: <b>SAC</b>		FACILITY IDENT: <b>SKA</b>	
FACILITY TYPE: <b>VASI (23)</b>		DATE PREPARED:			
TYPED NAME:		SIGNATURE:			

# **APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA** **FIGURE 8. SAMPLE FAA FORM 8240-22, MLS/DME**

FACILITY DATA									
I. AIRPORT / FACILITY									
1. LOCATION <b>WICHITA, KS</b>			2. ICAO IDENT <b>KICT</b>		3. MAG VAR / YR MAG VAR: <b>E 7</b> EPOCH YR: <b>1985</b>		4. AIRPORT REFERENCE POINT (degrees, minutes, seconds - to nearest hundredth) LATITUDE: <b>N37-38-59.80</b> LONGITUDE: <b>W097-25-57.80</b>		
5. AIRPORT / FACILITY NAME <b>WICHITA MID-CONTINENT</b>			6. OWNER <b>FAA</b>		7. FIELD ELEVATION (MSL) <b>1332.0</b>				
II. GENERAL									
8. TYPE FACILITY <b>MLS/DME</b>		9. FREQ / CHANNEL <b>AS 556 EL 556 DME 25Y</b>		10. IDENTIFICATION <b>JOZ*</b>		11. CLASS / CATEGORY <b>1</b>		12. COMMON SYSTEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
14. EQUIPMENT TYPE <b>AS WL EL WL</b>		15. TYPE ANTENNA <b>AS TYPE 6/60 EL TYPE 6</b>		16. ANTENNA ELEV. - MSL <b>AZ 1319.0 EL 1316.5</b>		17. ANTENNA HEIGHT-FT		18. CONTROL STATION AND FREQUENCY <b>ICT ATCT 118.2/257.8</b>	
19. ANTENNA LOCATION (Deg, Min, Sec - to 1/100th) LATITUDE: _____ LONGITUDE: _____				20. PRIMARY POWER <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE		21. STANDBY POWER <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> ENGINE <input checked="" type="checkbox"/> BATTERY <input type="checkbox"/> NONE		22. STANDBY EQUIP. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
24. RUNWAY NUMBER <b>19L</b>		25. RUNWAY TRUE <b>200.01</b>		26. MAG VARIATION / YEAR MAG VAR: <b>E 7</b> EPOCH YR: <b>1985</b>		27. VOICE <b>NONE</b>		28. AFIS RADIAL	
30. RUNWAY DIMENSIONS LENGTH: <b>7302</b> FT WIDTH: <b>150</b> FT LANDING LENGTH: <b>7302</b> FT				31. DISPLACED TH <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO DISPLACED: _____ FT		32. COMMISSIONED WIDTH: _____ DEG ANGLE: <b>3.00</b> DEG		33. ASR VERT COVERAGE & OPERATIONAL REQ RADIAL: _____ DISTANCE: _____ ALTITUDE: _____	
34. THRESHOLD ELEV <b>1318.9</b>		35. TCH TCH: <b>44.0</b> FT AGL RDH: _____ FT AGL		36. ILS/MLS (Degrees) <b>3.00</b>		PAR (Degrees)		VGS (Degrees) <b>3.00</b>	
								37. RESTRICTED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
III. LOCALIZER DATA (ILS, SDF, LDA) or MLS AZIMUTH									
38. LOCALIZER / AZIMUTH ANTENNA COORDINATES LATITUDE: <b>N37-38-23.05</b> LONGITUDE: <b>W097-25-38.42</b>				39. DISTANCE TO OM (NM): <b>7.10 FAF</b> (FT): <b>43159</b>		40. DISTANCE TO MM (NM): <b>N/A</b> (FT): _____		41. DISTANCE TO IM (FT) (NM): <b>N/A</b> (FT): _____	
43. DISTANCE TO TH <b>8471</b>		44. DIST TO STOP END <b>1169</b>		45. USABLE DISTANCE <b>20</b> NM AT <b>21319</b> FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		46. OFFSET LOC TRUE BEARING		47. LOC CW MONITOR WIDE: _____ NARROW: _____	
48. LOCALIZER COURSE TAILORED <input type="checkbox"/> YES <input type="checkbox"/> NO WIDTH AT TH (FT): <b>N/A</b>				49. BACK COURSE USABLE DISTANCE <b>N/A</b> NM AT _____ FT (MSL / MAA) NM AT _____ FT (MSL / MRA)		50. BC TRUE BEARING <b>20.01</b>		51. DISTANCE TO C/L RWY ABEAM GLIDE PATH ANT- FT <b>7585</b>	
52. DIRECTION (L or R) AND DISTANCE LOC OFFSET FROM RWY C/L <b>C/L</b>				53. FRONT COURSE CHECK POINT <b>KECHI INT RADAR 7.1 DME</b>			54. BACK COURSE CHECK POINT <b>N/A</b>		
IV. GLIDE PATH DATA (ILS, PAR, VGS) or MLS ELEVATION									
55. GLIDE SLOPE / ELEVATION ANTENNA COORDINATES LATITUDE: <b>N37-39-32.16</b> LONGITUDE: <b>W097-25-01.49</b>				56. DISTANCE TO OM (NM): <b>5.85 FAF</b> (FT): <b>35574</b>		57. DISTANCE TO MM (NM): <b>N/A</b> (FT): _____		58. DISTANCE TO IM (NM): <b>N/A</b> (FT): _____	
60. DISTANCE TO TH (NM): <b>.15</b> (FT): <b>886</b>		61. RWY ELEV ABEAM GS ANTENNA <b>1318.9</b>		62. TDZE (MSL) <b>1319.0</b>		63. DISTANCE - THRESHOLD TO GPI (FT)			
				ILS GPI: <b>840.21</b> RPI: <b>840.21</b>		PAR GPI: _____		VGS GPI: _____ RRP: _____	
64. DIRECTION (L or R) AND DISTANCE FROM ANTENNA TO RWY C/L <b>LEFT 399</b>				65. ALTITUDE OVER OM OR CK PT. (FT)			66. ALTITUDE OVER MM (FT)		
				TAPELINE <b>1864.35</b>		EC <b>30.27</b>		MSL <b>3211.12</b>	
				TAPELINE <b>N/A</b>		EC <b>N/A</b>		MSL <b>N/A</b>	
67. ALTITUDE OVER IM (FT)				68. DIST OM - TH (FT) <b>34688 FAF</b>		69. DIST MM - TH (FT) <b>N/A</b>		70. GLIDE PATH / ELEVATION MONITOR ANGLE (High): <b>3.23</b> ANGLE (Low): <b>2.78</b>	
71. ELEVATION USED TO COMMISSION GLIDE SLOPE - FT <b>1316.5</b>				72. TYPE OF APPROACH LIGHTING: <b>VASI-4L</b>			73. TYPE OF RUNWAY LIGHTING: <b>REIL HIRL</b>		

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**APPENDIX 19. INSTRUCTIONS FOR COMPLETION OF FACILITY DATA**  
**FIGURE 8. SAMPLE FAA FORM 8240-22, MLS/DME (Continued)**

V. VOR, VOR / DME, VORTAC, TACAN, DME					
74. REFERENCE RADIAL		AZIMUTH / CHECK POINT DESCRIPTION		75. THEODOLITE POSITION	
76. GROUND RECEIVER CHECK POINTS			77. THEODOLITE REFERENCE POINTS		
RADIAL	DISTANCE	DESCRIPTION		BEARING	DESCRIPTION
78. AIRBORNE RECEIVER CHECKPOINTS					
NAME	RADIAL	DISTANCE	ALTITUDE	DESCRIPTION	
VI. AIR TRAFFIC CONTROL (ASR, ARSR, CENTER, PAR, TOWER, VHF - DF, UHF - DF)					
79. TYPE SECONDARY	80. MTI BLIND SPEED	81. VIDEO MAPPING <input type="checkbox"/> YES <input type="checkbox"/> NO		82. ANTENNA TILT (Degrees) FIXED: VAR:	
83. NON-PRECISION APPROACHES					
AIRPORT	RUNWAY	AIRPORT	RUNWAY	AIRPORT	RUNWAY
84. REMARKS (Include all facility or airspace restrictions)					
<p><b>*BLOCK 10. AMIS IDENT IS JOZM.</b></p> <p><b>BLOCK 37. ELEV UNUSABLE CCW BEYOND 153 DEGREES (9/8/89).</b></p> <p><b>AZ BEAM WIDTH 1 DEGREE    ELEV BEAM WIDTH 1 DEGREE</b></p> <p><b>AER N37-39-41.74    W097-25-02.38</b></p> <p><b>SER N37-38-33.91    W097-25-33.45    ELEV 1319.8'</b></p> <p><b>DME N37-38-22.37    W097-25-36.08    ELEV 1331.0'</b></p> <p><b>RUNWAY C/L ABEAM EL ANTENNA    N37-39-33.51    W097-25-06.15</b></p> <p><b>AER TO POINT C = 1067.91/.18 NM</b></p> <p><b>BLOCK 16 USED TO COMPUTE TCH, GPI, RPI, POINT C.</b></p> <p><b>SIAP: WICHITA MID-CONTINENT, KS    MLS RWY 19L    ORIG    PUBL</b></p>					
REGION: <b>ACE</b>		FIO: <b>OKC</b>		FACILITY IDENT: <b>JOZ</b>	
				FACILITY TYPE: <b>MLS/DME</b>	
DATE PREPARED:		TYPED NAME:		SIGNATURE:	

**APPENDIX 20. DISTRIBUTION OF FLIGHT INSPECTION REPORTS**  
**PERTAINING TO MILITARY FACILITIES**

1. The following list of **Army** addressees shall each be furnished one copy of flight inspection reports of U.S. Army facilities as follows:

a. Flight inspection reports relative to the contiguous United States, Latin America, Alaska, and Pacific Theatres (except Korea):

- (1) Local Air Traffic Control Facility Chief
- (2) Department of the Army  
Aeronautical Services Agency  
9325 Gunston Road  
Building 1466, Suite N319  
Fort Belvoir VA 22060-5582
- (3) ATTN ATZQ ATC OS  
Commander USAAVNC  
Fort Rucker AL 36362-5265

b. Flight inspection reports relative to the European Theatre:

- (1) Local Air Traffic Control Facility Chief
- (2) ATTN: MOAS-AD  
CDR, USA Aeronautical Svcs Det Europe  
Unit 29243  
APO AE 09102
- (3) Department of the Army  
Aeronautical Services Agency  
9325 Gunston Road  
Building 1466, Suite N319  
Fort Belvoir VA 22060-5582
- (4) ATTN ATZQ ATC OS  
Commander USAAVNC  
Fort Rucker AL 36362-5265
- (5) Commander  
3/58 Aviation  
CMR 430  
ATTN: AETV-ABS3-E  
APO AE 09096

c. Flight inspection reports relative to the Korean Theatre:

- (1) Local Air Traffic Control Facility Chief
- (2) ATTN EACJ-EA-ATC  
Commander EUSA  
Unit 15236  
APO AP 96205-0009
- (3) Department of the Army  
Aeronautical Services Agency  
9325 Gunston Road  
Building 1466, Suite N319  
Fort Belvoir VA 22060-5582
- (4) ATTN ATZQ ATC OS  
Commander USAAVNC  
Fort Rucker AL 36362-5265

d. The Flight Inspection Technical Support Branch, AVN-210, shall furnish a copy of all contiguous United States and Korean Army facility flight inspection reports to:

ATTN ATZQ ATC OS  
Commander USAAVNC  
Fort Rucker AL 36362-5265

2. The following list of **Navy** addressees shall be furnished copies of flight inspection reports of Navy and Marine Corps facilities:

a. One copy of each flight inspection report of all Navy and Marine Corps facilities (worldwide) shall be sent to:

- (1) Commander Naval Air Systems Command  
Code Air 5512  
1421 Jefferson Davis Hwy  
Arlington VA 22243-5512
- (2) NCCOSC RDTE DIV 334  
53560 Hull Street  
San Diego CA 92152-5001
- (3) Mr Bob Lesperance  
Naval Flight Information Group  
Washington Navy Yard Bldg 176  
901 M Street SE  
Washington DC 20374-5088

b. In addition to the distribution specified in paragraph 2a, one copy of each flight inspection report for Marine Corps facilities (worldwide) shall be sent to:

Commandant of the Marine Corps  
Headquarters U.S. Marine Corps  
APC-5  
Washington DC 20380-1775

c. For shipboard TACANs, AVN-210 shall send one copy of the flight inspection report to the commands listed below; these commands shall make any required distribution to each ship:

- (1) For east coast ships (other than aircraft carriers):

Commander Naval Surface Force (Code: N8)  
U.S. Atlantic Fleet  
Norfolk VA 23511-6292

- (2) For east coast aircraft carriers:

Commander Naval Air Force (Code: 014)  
U.S. Atlantic Fleet  
Norfolk VA 23511-5188

- (3) For west coast ships (other than aircraft carriers):

Commander Naval Surface Force  
U.S. Pacific Fleet  
2841 Rendova Road  
San Diego CA 92155-5490

- (4) For west coast aircraft carriers:

Commander Naval Air Force  
U.S. Pacific Fleet N32  
PO Box 357051  
San Diego CA 92135-7051

3. The Technical Support Branch, AVN-210, shall furnish a copy of each flight inspection report of **USAF** navigational aids to the Major Command of the operating unit. AVN-210 will update unit mailing addresses with the respective Major Command on an annual basis. Major Commands will advise AVN-210 of address changes between updates as they occur.